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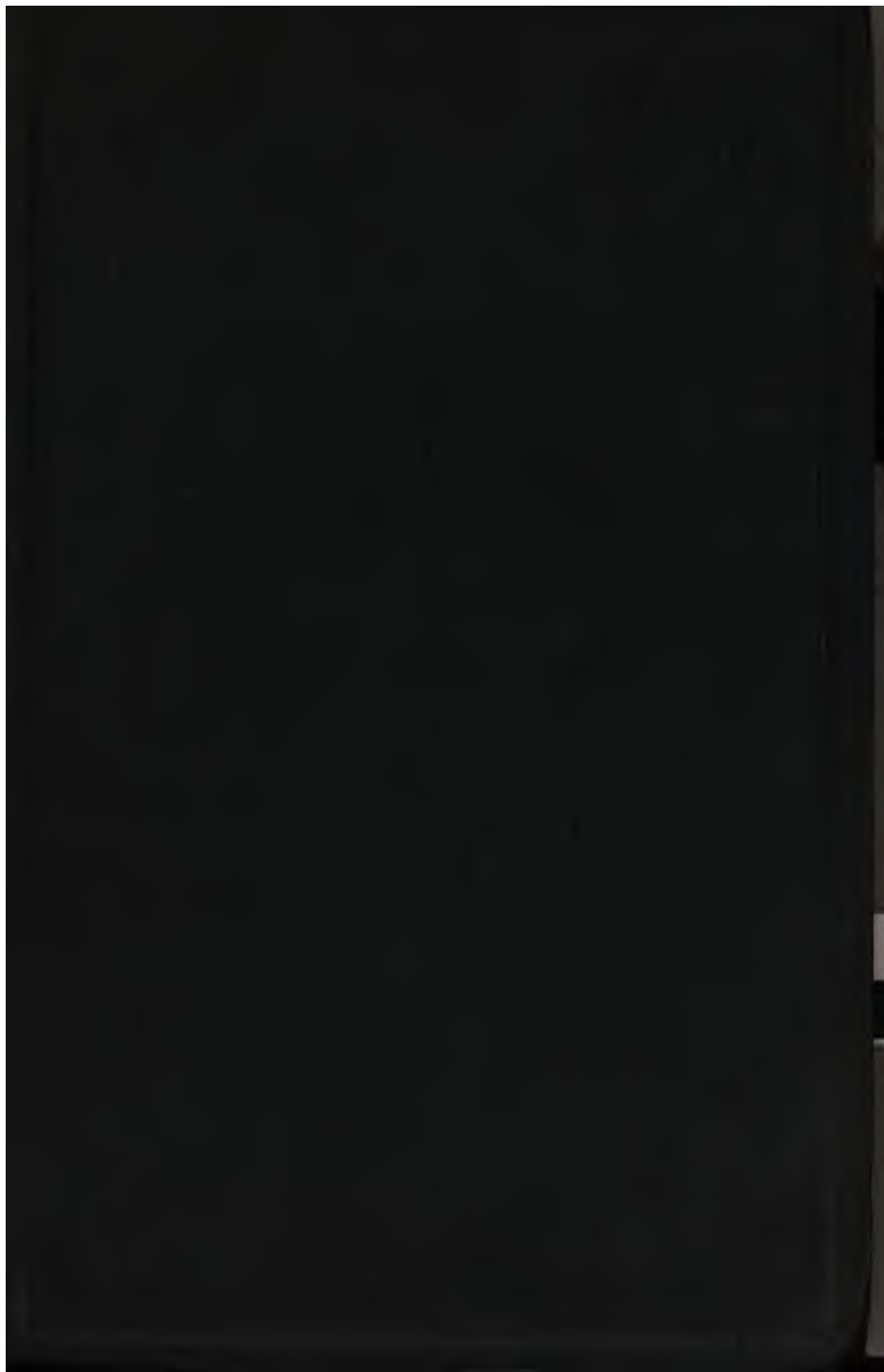
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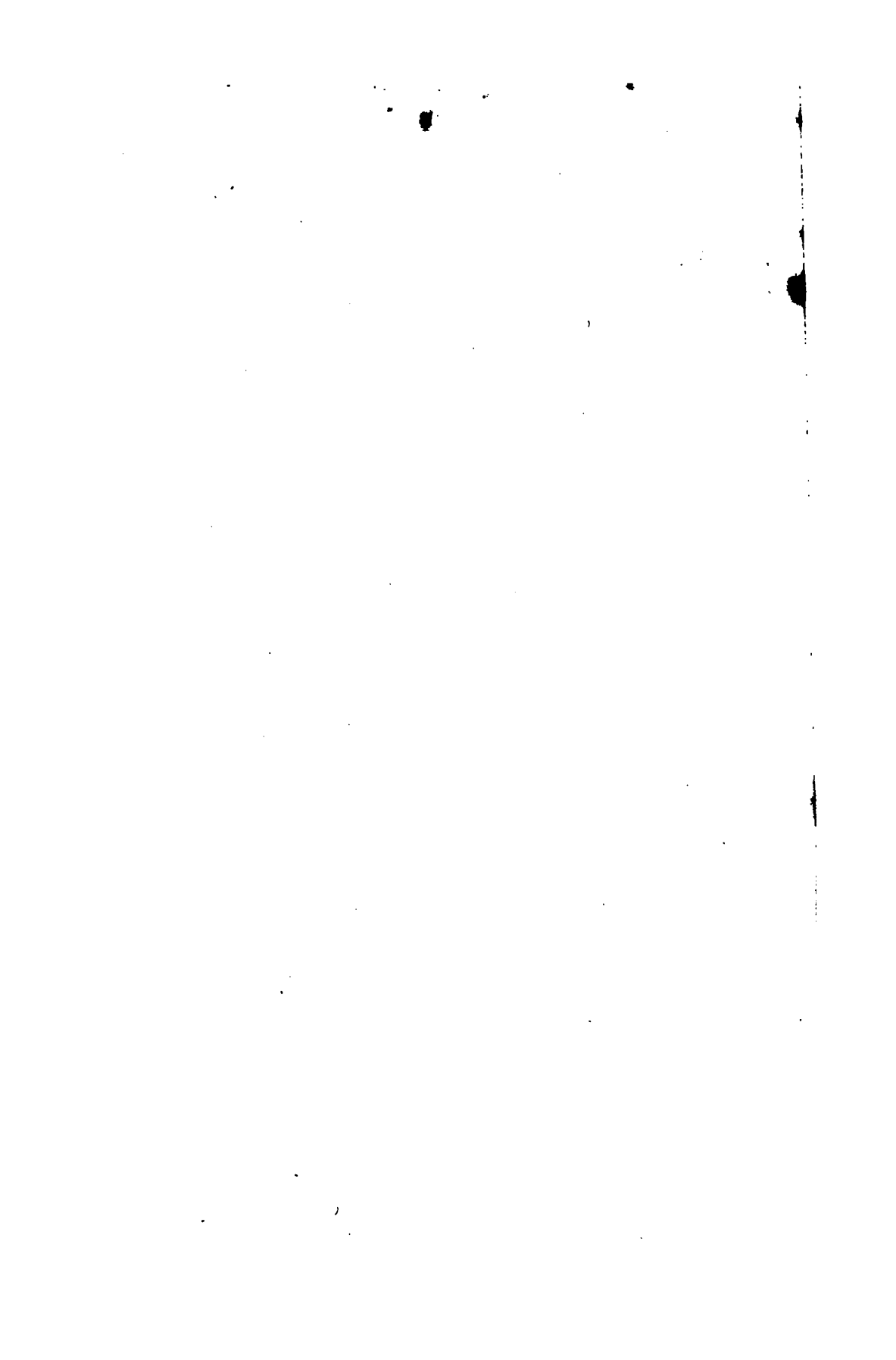
I received a Notice that the  
Committee meet on Thursday  
to consider the point of printing  
the Last Year's Lectures. As I  
shall not be there. I can only  
say that should it be deemed  
for the interests of the Institution  
to do so, (which is the one great  
point to be looked to) I will  
do my best to make such alter-  
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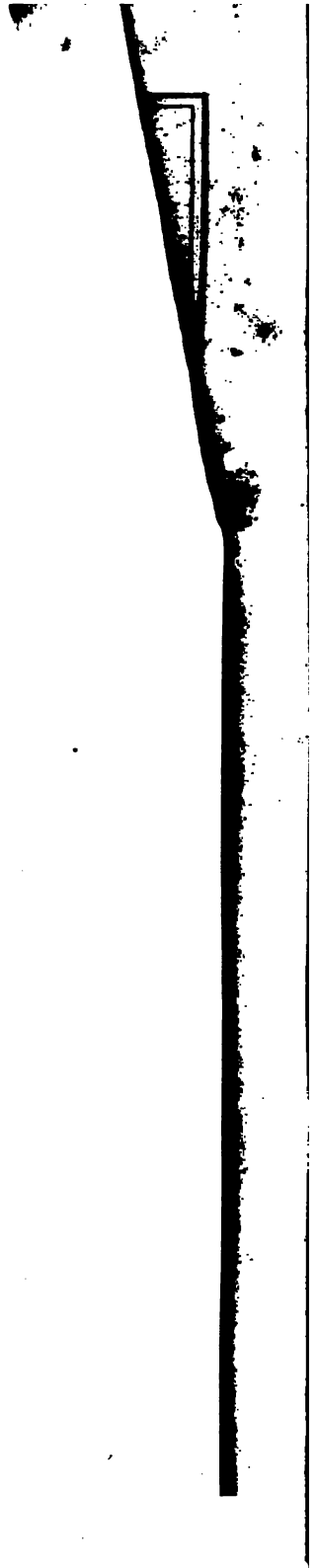


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Gough adds.  
Norfolk

p. 28.





OBSERVATIONS



ON THE

FAUNA OF NORFOLK,

AND MORE PARTICULARLY ON

THE DISTRICT OF THE BROADS.

BY

THE REV. RICHARD LUBBOCK,

RECTOR OF ECCLES.

**Norwich:**

CHARLES MUSKETT, OLD HAYMARKET.

LONGMAN & CO., LONDON.

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MDCCCXLV.

1899. e. 4



## P R E F A C E.

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THE following pages have already been in some degree before the public, as papers read before the subscribers to the Norwich Museum, and the indulgent reception they then met with has caused their re-appearance in this form.

I am not vain enough to suppose that I can add much to the zoological knowledge which is yearly becoming more general amongst us. Yet it is from local Faunas—from notes made by different observers in various districts, as to the frequency or scarcity of species in the counties in which they reside—that the Master Naturalist must build up his system for a nation. The humblest attempt therefore is not without its portion of utility.

To J. H. Gurney, Esq. I am indebted for a great deal of useful information on Norfolk Ornithology ; my thanks are also due to a lady whose able pencil has often befriended me before, and who furnished the etchings illustrative of a decoy.

If the observations on Decoys are thought to have interest, the credit belongs to my friend J. Kerrison, Esq., the possessor of the Ranworth decoy, from whom I learnt whatever I know on the subject.

With regard to Land Birds, my notes treat of the rarer species alone ; but with respect to Water Birds I have endeavoured to be more general. In this period of railroads, &c. so much alteration may be looked for in a few years, that some species now remaining in our marshes, will be speedily extinct.

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## ERRATA.

Page 2, line 10, for *elephus* read *elaphus*.  
 " 73, " 27, for *ruficeus* read *ruficens*.  
 " 120, " 11, for BEAU read BEAN.  
 " 131, " 14, for *Eriax* read *Eriox*.  
 " 135, " 3, for *nudas* read *undas*.

OBSERVATIONS  
ON THE  
FAUNA OF NORFOLK.

---

LECTURE I.

IN endeavouring to give a sketch of the Quadrupeds, Birds and River Fish to be found in the county of Norfolk, the first division, that of MAMMALIA, may be comprised within a narrow compass,—species grow gradually scarcer and scarcer. When we look at the trim fences and high cultivation of great part of this district, a wide stretch of imagination is necessary to carry the mind back to days departed, when the urus, the bear, and the wolf ranged the forest or traversed the marsh, pursued by hunters nearly as savage as themselves.

The Norwich Museum contains very fine skulls of the animal first mentioned, the urus, dug up during the excavation of the North Walsham canal, and it would seem to have been formerly not an uncommon animal here. It should be remembered that the skulls of this animal, which from time to time have been found, betoken a very different creature in size to the present wild cattle of Chillingham park, although these are, no doubt, the legitimate descendants and sole remnant in Britain of the urus or

aurochs, so famous formerly for gigantic size and unrivalled swiftness and ferocity. Similar degeneration of species seems to have taken place with regard to the urus in Poland; a century ago specimens are recorded as weighing 120 stone and upwards. There is not one now, it is said, in the forest which is their sole and last resting place there, above sixty stone in weight.

Stags' horns also, the remains of the Red Deer (*Cervus elephus*) of the largest size are found in various situations, very commonly in ponds and pieces of water. Many years ago I had some conversation with the late Duke of Athol's forester: he said that a hard winter was sometimes supposed to lessen the herds in Glen Tilt by five or six hundred head, and that yet very few skeletons were ever found in the spring. The general opinion in the Highlands seemed to be, that when the deer found themselves exhausted, they went down to the water to die. From the size of the fragments dug up from time to time, it would appear either that the stag was a much larger animal formerly, or that the horns in centuries gone by were themselves much larger in proportion to the size of the animal. From horns preserved in German castles, from tradition, &c., the latter would seem to be the case. (See Griffith's edition of Cuvier, Reidinger's plates, &c., on this head.) The horns of the Roebuck (*C. capreolus*) are much less frequent in occurrence here than those of the Stag, but a good pair, with part of the skull annexed, were dug up by the turf-cutters on Buckenham fen near Attleburgh, within the last few years, and they have occurred occasionally in other situations. The Roe is probably the first species of deer which becomes extinct in a district through the spread of cultivation. The large expanse of forest which it requires, its solitary habits, and its comparative facility of access, all cause it to be one of the

easiest in extermination. But not only the larger but the smaller and more common beasts of chase feel the same pressure. The foxhounds have been recently given up in Norfolk from a lack of material for sport. The Badger (*Ursus meles*) is all but extinct with us; a very large one was taken about three years back near Holt. Mr. Paget, in his valuable *Essay on the Natural History of Yarmouth*, mentions one or two situations near Yarmouth where the animal formerly occurred. At Honing, in the neighbourhood of North Walsham, the Badger was frequent at the beginning of this century. In the hunting districts it has sometimes been encouraged as the architect for the fox, which takes possession of the badger's earth, as too lazy to make a similar one for himself; this, perhaps, has in some places kept the species still in existence.

However, before I mention wild species at all in detail, I should speak of domesticated animals. With regard to Black Cattle, we have not in this county any peculiar breed of the district. Suffolk has its own peculiar Cow, which is in high repute with the dairy-men in the neighbourhood of the metropolis. THE NORFOLK HORSE used to be a low and rather thickset animal, with great trotting powers; but of late years blood has been the order of the day here as elsewhere. It has been usual to decry Norfolk horses, but that celebrated sportsman, the late Sir Henry Goodricke, who was a heavy man and a very hard rider, used to ride horses purveyed for him by a dealer at Swaffham with great satisfaction. The fair in spring at Downham always attracts all the London dealers. The reason that Norfolk horses so often disappoint those who breed them, is the too common plan of keeping them badly when young. No animal can develop its powers if unfairly stinted in food whilst growing rapidly.

THE NORFOLK SHEEP is indeed *sui generis*: this is the

most remarkable of our domesticated animals, possessing nearly the agility and erratic propensities of the deer. These qualities have led to its disappearance: very few remain, and those only in the open country. They are penned with difficulty. Deer hurdles will hardly confine them, and if they get out they must be sought in the next county.

Mr. Paget mentions the MARTIN CAT (*Martes fagorum*) as formerly occurring at Herringfleet and Toft. I have not been able to verify an instance of its being taken of late years. It still is occasionally found in Essex, and twenty years ago was far from uncommon in the extensive beech woods of Buckinghamshire.

THE POLECAT or FOMART (*Mustela putorius*) is much more common than it at first appears. It is strictly nocturnal, and then often so erratic in its habits that detection and capture are difficult. Formerly it was supposed that this animal, having established itself in a wood, preyed in that very cover without straying far away; but the Polecat is in habits similar to the Fox, and like that animal will travel miles for booty when it might satiate itself close at home. Of late years, Fomart Hounds have been kept both in Wales and the North of England. The dog resembles the Otter Hound, but is smaller,—a low long-bodied dog covered with rough hair. The scent is so strong, it is said, that a hound at ten or eleven o'clock can follow the trace which the Fomart left in returning home at dawn.

There is one species of dog very common here, though not entirely peculiar to the county—the Yarmouth Water Dog, as they are generally termed in other parts of England. The sagacity of these dogs in pursuit of wounded birds, and their hardihood in the water, must be seen to be believed. Many years ago, a dog of this kind was

kept at the Draining mill, at the top of Breedon water, near Yarmouth. In the winter, his favourite pursuit was to go out by himself and search in the rough stones which face the Breedon wall for wounded wild fowl; these always, if possible, creep into some nook or corner. When the wind was north-east, and many ducks in the country, he sometimes carried home eight or nine fowl of various kinds in the same morning. After leaving one at the mill with his master, he returned of his own accord to the place where he took it, proceeding regularly in his search, and every time recommencing exactly where he left off. As he travelled to and fro upon the marsh wall, he would, if unloaded, wag his tail and acknowledge the notice of any one who spoke to him; but no sooner had he obtained booty than he seemed to consider himself the guardian of a treasure and to distrust every one. As soon as a man appeared coming towards him he left the wall, and crossing a wide dyke, betook himself to the marshes and went the longest way home.

Some naturalists have supposed that the Ferret is nothing more than the Polecat domesticated. The one is certainly a most active, the other a slow and torpid animal; but this may arise from close confinement. I know an instance in which three or four ferrets were turned off to free a mill from rats, and after a few weeks of perfect liberty they exhibited all the briskness and agility of the Polecat.

THE STOAT (*Mustela erminea*), here provincially called a Lobster, makes head against constant persecution, and the unceasing efforts of gamekeepers. Probably the extensive rabbit warrens and the open nature of great part of the county have encouraged its increase; where the country is enclosed and a trapper knows his business, it is most easily caught.

THE WEASEL (*Mustela vulgaris*), the last and smallest of this fierce and active tribe, often merits protection instead of pursuit. Whenever it gets into a farm-yard it deserves encouragement from its pursuit of mice and rats. Its Norfolk name is *Mouse-hunter*. Even in the fields it is far from being so pernicious to game as the above mentioned. Mice and moles compose great part of its diet. Even in the spring, when partridges and pheasants are young, in all the instances in which I have seen a Weasel with prey in its mouth, the booty has turned out to be a mouse. The contrary is generally the case with the Stoat, the ravages of which amongst game are very great.

THE WILD CAT (*Felis catus*) has long been extinct, not only in Norfolk but in the greater part of England. Every now and then mention is made of an immense cat of a cypress colour taken by a gamekeeper; but these are merely individuals which have left the cottage fireside for liberty and plunder, and have fattened by their marauding course of life.

THE OTTER (*Lutra vulgaris*) is taken at intervals, was formerly very common upon our rivers and broads, and is still much more frequent than it appears. Sir T. Browne, in his *Letters on the Natural History of Norfolk*, notices the abundance of this animal. If in a narrow stream, with a host of pursuers on each bank, and a pack of veteran dogs in full pursuit in the water, an Otter will elude capture for two or three hours, we see that in the interminable reed beds surrounding our broads, he must completely defy enemies of this kind. A few are occasionally caught in a steel trap, set without a bait on the place where they land to eat fish; and there is hardly a broad in Norfolk in which an Otter has not some time or another been found drowned in one of the numerous bow nets which are there set in the spring for pike. I perpetually

find the seal of the Otter in a small river in which I am in the habit of fishing between Larlingford and Thetford, but I have never seen an Otter there. Ten minutes examination of the Otters at the Zoological gardens, when in a state of activity, will convince an observer of the perfect power of concealment which this large animal possesses. It emerges from the water rather like an eel than a quadruped. With a momentary noiseless wriggle, it is seated on the margin of the tank, and replunges, without more commotion of the element than might be caused by a small pebble. It is in my opinion far more common even at this day than it at first appears. The young have often been partially tamed in Norfolk, but I never knew them used here for fishing, as has been the case repeatedly in Scotland. The nearest approach made by the Otter, in my recollection, to the city of Norwich, was some twenty years back, when several took up their residence in the willow carr behind Cringleford mill. Some instances have occurred of late years of this animal's appearance near Norwich in extremity of frost; but in these cases the stress of weather, and not his own choice, brought the Otter so near to us.

A very large and aged Otter was taken this spring and brought into the Norwich market from Surlingham; his teeth were worn and broken like an old terrier's; he had prowled about there, I was told, in solitary wretchedness for two years, his wife and her family having been all murdered. He was a sort of last of the Mohicans, and so cunning that he eluded every attempt to trap him. His weight was twenty-eight pounds. Some years back, one particular marsh between Rockland broad and the Yare was a favourite haunt of otters. An old man, who used to fish and cut reeds on the broad, told me that on a warm sun-shiny afternoon he had often seen two or three

playing together. He described them as very frolicsome animals, and in their gambols on dry land showing great agility, and resembling the dog in their actions.

THE BROWN RAT (*Mus decumanus*) is too common everywhere, and the BLACK RAT, the original Rat of Britain, (*Mus rattus*), is still occasionally found in the city of Norwich. Of late years, the system prevalent among agriculturists of making stacks in the fields, appears to have increased the numbers of these animals. Formerly, they were all collected into a common focus—the barn and farm-yard; now, there are sometimes three or four colonies upon different parts of the same occupation. When stacks are taken down in the fields in spring, many escape into the fences and live in the corn during the summer. During this last summer, and at this very time, these pernicious animals have been more than usually common. In the district in which I reside, unusual numbers have been killed and nearly all full-grown rats; instead of a great proportion of young of all ages and sizes, which generally make up more than half the rat-catcher's tale. It appears probable, that the general destruction of the polecat, the stoat, and the weasel, is one cause of the prevalence of these pests at the present day.

THE WATER RAT (*Arvicola amphibius*) is abundant everywhere in low grounds. The plenty of this food is one cause which brings the stoat and weasel into the marsh. This and the Short-tailed Field Mouse (*Arvicola agrestis*) which is also abundant, prove an easier prey than the Brown Rat, which, when old, sometimes makes a desperate resistance.

THE COMMON MOUSE (*Mus musculus*) occurs everywhere of course. The LONG-TAILED FIELD MOUSE (*Mus sylvaticus*) is general. The HARVEST MOUSE (*Mus mesorius*) is found partially; at least, I have often heard

of a minute reddish mouse found in corn-fields and of their nests, agreeing with the description given by Gilbert White. Mr. Gurney informs me that he once took a specimen of the Bank Vole of Bell (*Arvicola pratensis*) from the nest of a kestrel.

THE COMMON SHREW (*Sorex araneus*) is general. The WATER SHREW (*Sorex fodiens*) occurs, not however so generally; and the third, and lately discovered species, the OARED SHREW (*Sorex remifer*) has been taken near Norwich.

THE HEDGEHOG (*Erinaceus Europæus*) is still common, though much persecuted for its depredations upon the eggs of game. In the neighbourhood of London it is always, if possible, taken alive, as it sells in Leadenhall or Covent garden, as the best destroyer of those filthy insects, cock-roaches.

THE SQUIRREL (*Sciurus vulgaris*) is found more or less in all plantations. The migration, general or partial, of these animals, seems to have been overlooked; they certainly come and disappear in considerable numbers. Perhaps they leave particular plantations when the fir cones, &c., are exhausted. I think I have observed a partial migration of these animals in the more open parts of the county myself, but it is best to speak cautiously. In almost all other countries, wherever squirrels are abundant, they are more or less migratory, according to their supplies of food.

THE DORMOUSE (*Myoxus muscardinus*) I cannot verify here, nor does Mr. Gurney remember an instance of its occurrence; still, as Mr. Paget has noted it, I should be inclined to think that it is found sometimes.

From the extensive list of Bats to be found in Mr. Bell's *British Quadrupeds*, several of which, however, have occurred only once in England, I had hopes that I should be

able to make additions from my own observations to the three kinds of Bat usually recognized here,—the LONG-EARED (*V. auritus*), the GREAT (*V. noctula*), and the COMMON (*V. murinus*); but this has not been the case; I can myself speak of no fresh species. Mr. Bell speaks of specimens of his Reddish-grey Bat (*V. Nattereri*), received by Mr. Yarrell from Norwich. Bats, however, do not here attract any general attention, and by that alone is the verification of new species in particular districts to be hoped for. I am not, however, at all contented with what I am now obliged to state. I think that close observation would bring to light one or two other species amongst us. There are probably two species of very large Bat to be found in Norfolk; but hitherto I have not been able to meet with any one who has succeeded in distinguishing the two. In observing their flight on a summer's evening, I have seen a great difference, although size and general appearance were the same.

THE MOLE (*Talpa Europæa*) is abundant, particularly in our low wet grounds. Its powers of swimming render it fearless of common floods. An albino variety is not unfrequently found. I once observed two specimens of a cream-colour hanging in traps in the same marsh, but so much decomposed that they were useless for preservation.

HARES are most plentiful, as might be expected in a county which is almost entirely a game preserve. And RABBITS have long been reckoned one of the staple commodities of the district. The variety,—a black rabbit, with white hairs intermixed,—called Silver Sprig, would seem to have been long established here. The *Paston Letters* mention it as occurring on a warren near Billingford.

THE SEAL (*Phoca vitulina*) is mentioned by Sir T. Browne as occurring in the Norfolk rivers, and coming

up to Surlingham within six miles of Norwich. In those days, probably, fish were far more abundant; and there is reason to suppose from the same and other authorities that salmon often visited our rivers. These, as the owners of Scotch and Irish fisheries know to their cost, are the favourite prey of the seal.

To the list of *Cetacea* given by Mr. Paget, may be added a specimen of the *Balæna rostrata*, taken in the Lynn river in 1842. The species would then be as follows, according to his observation:—

*Balæna rostrata*, once.

*Balæna mysticetus*, observed once, 1784.

*Balæna physalus*, several times.

*Delphinus oreo*, in two or three instances.

*D. phocæna*, frequent.

*D. bidens*, Bottle-nosed Whale, in two instances.

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THE same causes which were mentioned in treating of the Quadrupeds have been at work amongst the BIRDS of Britain. Wherever any species has been pronounced noxious or even useless, unless some popular prejudice interfered in its behalf, it has verged towards decay. The alterations of the face of the country, woods planted or marshes reclaimed, also exercise at intervals a power over different species, not of extirpation, but of change. There is a compensating principle continually at work throughout nature. If a marsh is drained and subjected to the plough, the call of the partridge is substituted for the cry of the lapwing and the snipe; if the same is planted, the woodpigeon, the jay, the misselthrush, the pheasant, and various others, creep in to fill up the vacuum which it is truly said "nature abhors."

Some birds, however, have been peculiarly affected by the changes in manners and amusements which time brings with it; and this may be particularly asserted of those which, according to common arrangement, are first to be considered,—the rapacious birds of all kinds. The forgotten sport of Falconry has left behind it abundant record of the immunity which in days of yore clung to every feathered thing which called itself a Hawk; not only were the generous kinds protected, but kites and buzzards marauded in security, hiding their misdeeds under the shadow of the nobler species. No hawk's nest was to be destroyed, lest it should prove of a kind valuable for falconry. In those days might fairly be seen the nature of the birds as it really was, and that in many instances appears to have been to cling to man. The wild hawks, we are told in old treatises, often paused in their flight to observe the sportsman and his dogs, and gain for themselves some of the booty which had escaped the trained bird. The Hobby, in particular, skirted along near the sportsman, to try for the larks, thrushes, and other small birds disturbed by his spaniels. We find the same spirit amongst rapacious birds at present, where undisturbed. Dr. Richardson and many other writers represent hawks and owls, in regions little traversed, as not avoiding but following the sportsman, with the hopes of picking up some wounded bird. But amongst ourselves, a hawk when seen has the air of a convicted felon; he skulks along conscious that every man's hand is against him,—the nature of the bird is in some degree changed by the untoward circumstances in which he is placed.

In so flat a district as our own, Eagles of both species, rare in all parts of Britain, are only occasional visitants. The WHITE-TAILED EAGLE (*Falco albicilla*), which is the most common here of the two, is generally observed in

some part or another every autumn and winter. Most of those which visit us are birds of the year, and a friend, from whom I have often derived information, thinks that this wandering disposition in the young birds arises in some degree from the habit, invariable amongst these and other species, of driving away their young as soon as they can shift for themselves. These probably wander for some time, and the next breeding season fix on a permanent abode. A specimen now in the Norwich Museum was taken by a herring, set as a bait to catch seagulls. The late Mr. Girdlestone, of Yarmouth, told me he had three of these eagles in sight at once, during some severe weather in the year 1827. This was upon Horsey warren. The warrens on the coast are the favourite haunt of these birds when they visit us. The rabbits afford them plenty of food, and the open nature of the ground suits the bird better than fenced and cultivated parts. I have seen this eagle in very severe weather as near to this city as Postwick grove. It was beating leisurely up the river, apparently searching for coots or wild fowl in the wakes which remained unfrozen.

THE GOLDEN EAGLE (*Falco Chrysaetos*.) Our Museum possesses a specimen of this rarer kind. Recent investigation seems to contradict the old opinion that this is the larger species. It is fiercer and more courageous, but, if equal, not at all superior in size to the White-tailed Eagle. Our specimen is, however, a very large one. One was shot very lately at Fritton.

Of the OSPREY (*F. haliæetus*) it must be remarked, that although not at all unknown, it is not so common as might be expected in the region of the broads. There are specimens in the Museum killed in the county.

THE ROUGH-LEGGED FALCON (*Falco lagopus*.) This Buzzard, for it is in habits and flight merely a Buzzard,

comes to us in very unequal numbers. In some hard winters it may almost be called common. Nine or ten have sometimes been brought to Yarmouth in the same week from the warrens in the vicinity. In almost all instances these are immature birds. Audubon, in the fifth volume of his work on the *Birds of America*, observes the very same thing of this and other species of hawks,—that the young appear inclined to wander and migrate, but that the old, having once found an habitat, adhere to it. It may be observed, that almost all the larger kinds of hawk, when they wander hither, fix themselves in a rabbit warren or a decoy, if possible. The warreners throw up small mounds of earth about a yard in height, and take them with an unbaited trap fixed upon the apex. In this way buzzards, harriers, and the more generous falcon are all easily caught; for in default of a more elevated perch, they make use of these hillocks to alight upon. The Kite, perhaps, is an exception; for it seems to glide gracefully round, oftentimes merely for the pleasure of flight; but most hawks, when not in pursuit of prey, remain motionless in perfect repose.

One particular species, the MARSH HARRIER, (*Circus rufus*), might twenty years back have been termed the Norfolk Hawk, it was so generally dispersed amongst the broads. Almost every pool of any extent had its pair of these birds; they consumed the day in beating round and round the reeds which skirted the water; this was done for hours incessantly. All the birds wounded by the sportsman fell to the share of the Moor Buzzard. He was, as it were, the *genius loci*,—the sovereign of the waste; but, although still often to be met with, he has, like all his congeners, receded before the gun of the game-keeper,—the curse of his race is upon him. I once kept one of these birds in confinement. It was full-grown when

taken; its courage and ferocity were very great, perpetually endeavouring to attack those who went close to its mew. It killed a large land rat, put into its cage uninjured, in an instant. Sir T. Browne represents it as occasionally carrying off the young of the otter to feed its nestlings with. I have found the nest amongst a bunch of reeds on Barton fen with two young. Mr. Gould first, I believe, noticed the grey tinge which old males of this species assume, somewhat similar to the colouring of the Hen Harrier. This, I think, must occur only in very old specimens. I never remember having seen it but once in any specimen upon the wing. And formerly on the larger broads one or two of these buzzards were sure to be observed in the course of the day. At the time, I thought the reflection of the sun caused the bird to look greyish, but am inclined now to think that it was in the stage of plumage mentioned by Mr. Gould. Mr. Sidney, of Acle, has one in complete plumage. I observe, by the *Magazine of Natural History*, that some authorities believe that there are two species of Marsh Harrier; one of which turns greyish, whilst the other remains always rufous. In decoys this is a most troublesome bird, keeping the fowl in such continual restlessness that the decoy-man can do nothing with them.

THE HEN HARRIER (*Circus cyaneus*) and the ASH-COLOURED HARRIER (*Circus cineraceus*) both occur occasionally in the county; but though sometimes found in the marshes, like the last species, they prefer the upland heaths and warrens; when in the low grounds they seek prey by beating over the open marshes and not over the reeds and water, like the Moor Buzzard. The nest of the Ash-coloured Harrier has been taken on Grimstone common near Lynn; it is said to breed occasionally near Thetford. The Ash-coloured Harrier is not easily

distinguished from the larger species when upon wing; although inferior far in volume of body, it looks nearly as large as the other when in flight, from its great extent of pinions. These birds, as well as the Marsh Harrier, show great boldness when pressed by hunger. When snipe shooting, a Ringtail Hawk, the female of the Harrier, accompanied me for more than two hours, evidently hoping to obtain some head of game which I should spring. It attempted one or two snipes, yet appeared quite conscious of its inability to cope with them in flight, but very nearly indeed captured a water-hen. If a ditch full of reeds had not been at hand, it would have succeeded. White has mentioned a similar instance, when the bird assailed pheasants as they were sprung by the sportsman. The Hen Harrier always breeds here in a few instances, although not a bird of frequent occurrence. Many years back I have known of its breeding at Surlingham.

THE COMMON BUZZARD (*Buteo vulgaris*) is in these days anything but a common bird. Old books of Natural History speak of it as the most common of hawks. It is so no longer. Its size and sluggish habits expose it to observation and consequent destruction. It used frequently to breed in this county in the larger woods—Hethel and Ashwelthorpe for instance; but what few specimens now occur seem to be occasional stragglers in the autumn, and birds of the year. Another species nearly allied to it, the HONEY BUZZARD (*Pernis apivorus*), which was a few years back thought extremely rare, has lately often occurred here; several specimens in various stages of plumage are in the Norwich Museum.

THE KITE (*Falco Milvus*), on the Yarmouth side of the county is very rare indeed; it sometimes occurs about Swaffham and Thetford, and still breeds in a neighbouring county, Huntingdon. It used, half a century back, to be

rather common in Norfolk. Colonel Thornton, when at the head of a subscription hawking establishment, speaks of some grand sport in the pursuit of the Kite at Eldon, on the borders of this county.

I have enumerated the larger kinds of ignoble hawk; these are scarce enough, but those of which I next speak are far rarer still. The very birds most prized in days of old are at the present time most persecuted. The talents they displayed formerly for the use of man would now render them the dread of the gamekeeper and the scourge of the preserve; they are, however, so scarce, that the mischief is nominal.

THE JER FALCON (*Falco islandicus*), the noblest of hawks, is so rare here, that not above one specimen perhaps can be really assigned to Norfolk. This was wounded many years back on Bungay common, and lived some time in confinement. Recent observations have proved that the opinion of the most skilful of the old falconers was well founded, that the Norwegian or Greenland Falcon, and the Iceland Falcon, though both termed Jer Falcon, were in reality different,—the Iceland bird the most valuable. Within the last few months, the papers announced the arrival of eight Iceland Falcons at Newcastle, procured for the Duke of Leeds by Mr. Proctor, the curator of the Museum there. These birds were intended for the purposes of falconry. In our Museum is an immature specimen of the Greenland Falcon, but not killed in Norfolk.

Another species, somewhat inferior in size but equal in courage, the PEREGRINE FALCON (*Falco peregrinus*), formerly the mainstay of sportsmen, still occurs here, particularly in the autumnal migration. It is indeed more common than it appears, but merely in passage. Its flight is so lofty that, unless arrested by the devices used by

falconers to catch it, it escapes observation. Its appetite for carnage is so great that it will often strike at the pigeon used as a decoy when gorged with food. I was assured of this fact by the intelligent German who used to manage the falcons at Didlington. I saw myself one of these birds pass along a broad, striking indiscriminately at every coot in his line of flight; they were all on wing, being alarmed by a boat. Whilst within view he made four pounces and killed two coots; one of these, which I procured, was cut down to the bone of the neck, which appeared dislocated. Mr. Hewitson, in his valuable work, points out the very various situations which birds sometimes choose in nesting. I think that I could produce an instance in which this bird, the Peregrine, nested in a lofty tree in this county. A rock is its usual resort. But from the very intimate acquaintance my informant had with birds,—and that he knew this species well, I am sure,—I believe his assertion to be correct. During the time that the late Mr. Downes practised falconry near Yarmouth, a pair of these birds used to breed in the steeple of Corton church. The nestlings were taken and trained to the chase, the clerk having a regular retaining fee for their preservation. Indeed, these birds, affecting the loftiest situation they can find, have often taken up their abode in the spire of our cathedral, to the great annoyance of the pigeon fanciers of this city. One was shot from one of the Norwich bridges some years ago, in pursuit of a pigeon. The dove kind and wildfowl are what the Peregrine prefers, and its boldness, when pressed by hunger, is almost incredible. Some twenty years ago, a pair haunted a fir plantation about three miles from Norwich, and not once only but several times these birds carried off a pigeon from the very feet of a farmer in the neighbourhood; they appeared almost

to know the whistle by which he called his pigeons, and to come to the signal. One of these, the female bird, was shot, and passed into the collection of Mr. Postle.

Of the GOSHAWK (*Falco palumbarius*) we have two Norfolk-killed specimens; two or three others have occurred in the county of late years. The bird, until lately, appeared extinct amongst us. Most of these specimens have been young birds; one which is here is in intermediate plumage, and I am told that Mr. Spalding, of Ditchingham, has one in adult plumage.

Some of the smaller hawks, the SPARROW-HAWK (*F. nisus*), and the KESTREL (*F. tinnunculus*), are still not infrequent. The HOBBY (*F. subbuteo*) is rather rare. I have known it to breed at Hargham, in this county, in the deserted nest of a crow. One we have in the Museum was shot whilst perched on Saint John's Maddermarket church, in the midst of noise and smoke. The MERLIN (*F. aesalon*), in an immature state, occurs every winter, though not common. Adult males are very rare.

There remains one little bird, which must have separate notice, from its rarity,—the ORANGE-LEGGED HOBBY, or RED-LEGGED FALCON (*Falco rufipes*.) Several of these rarest of hawks have been killed in the county; three by Mr. Heath, of Horning. It seems of no courage or daring; was tried for hawking in days when the endeavour was to press all hawks into the service of man, but proved utterly useless. It appears to live a good deal on worms, insects, &c.; is said, in an old *Treatise on Falconry* which I have, to follow the merlin, in the hopes of obtaining the fragments of its prey. Mr. Yarrell gives a particularly full and good description of this rare hawk in his valuable work.

The hawks, rightly considered, are most interesting. The sight of a falcon is somewhat like that of the rusty

mail or the monument of a departed hero,—the memories of the past crowd upon the mind, when these birds, now proscribed and almost annihilated amongst us, were the favourites of ladies and the companions of princes.

OF THE REMAINS OF FALCONRY IN NORFOLK.

IN former days, Norfolk must have been a paradise to the falconer. Its extensive heaths, for the pursuit of the partridge or the nobler flight at the kite; the interminable ranges of marsh, where the peregrine or the lanner might encounter the heron and the mallard; or the active merlin try his pinions against the speed of the snipe, caused the county probably in those days, as at present, to have high reputation with the sportsman. In the L'Estrange *Household-book* perpetual entries call to mind this nearly-forgotten science. There are notes of money paid for the keep of the goshawks, which seem to have been periodically sent out to walk, as hounds are at present; there is a charge made to the knight for a tame mallard to lure the hawks with in Hunstantone marshe. In Blomefield's *Norfolk* are several notices of hawk service. In the reign of Edward III., Reginald de Dunham, for instance, held the manors of Fishley and Witton, by the service of keeping a goshawk for the king. Landed property is mentioned by the same authority as conveyed by William de St. Clare, to William son of William de Heveningham upon service of a sparrow-hawk. And as for many years, and until very recently, the nearly forgotten pastime of heron hawking was annually practised at Didlington, the seat of Lord Berners, it may not be improper to say somewhat on this subject. Sir J. Sebright in his *Treatise on Hawking*, observes, that the village of Falconsward,

near Bois le Duc, in Holland, has from time immemorial furnished falconers to different parts of Europe. The falconers who brought every season hawks to Norfolk, were natives of this place, and most respectable and intelligent men, fond to a degree of their art, and pleased to give information to any one interested therein.

The hawks requisite (the female Peregrine) were taken in autumn, near Falconswaerd, by a pigeon and a net, with the assistance of the ash-coloured shrike as a scout to announce the approach of a falcon. Their difficulty they said was not so much in the capture of hawks as in a dearth of herons to train them with when taken. The heron on these occasions is caught alive by nooses set on the margin of a water ditch, or spring head, wherever numerous footmarks show that the birds often visit a particular spot.

All the hawks received a certain portion of training, and many were perfect at the time they arrived in Norfolk, —the end of April; the time for sport being whilst the heron has young ones.

The afternoon was the best part of the day, and as herons go forth in one direction or another, according to the wind, one part of the estate or another was resorted to in turn, in what was deemed the most likely direction for intercepting full herons returning with food to their young, after journeying into the fens for fish.

If it was feasible, the hawking party, which was often numerous, was screened from observation under one of the belts of firs, common in that part of the country; and two falconers on horseback, each with hawk on fist, looked out afar for the coming of a heron. The gathering point for these birds was the heronry, a lofty plantation in the valley; and the distance at which a practised falconer espied a heron returning, was most remarkable.

According to the course of the bird, the falconers remained motionless or rode in advance, so as to get nearer the line in which the heron was moving. If they could get within three or four hundred yards, the falcons were unhooded, and swung themselves buoyantly into the air. Here sometimes happened what to a novice seemed a riddle: a falcon to act with advantage, must rise above its quarry, and to do so must make its circles in rising against the wind. Therefore in "climbing to the mountee," as our ancestors termed this evolution, the hawks sometimes appeared going in one direction and the heron in another. But no sooner do they attain the requisite elevation, than they dash forward in pursuit, straining one against the other: the first up with the heron makes its pounce, which, if unsuccessful, sinks it far below. It must climb once more to attain elevation; in the meantime the other falcon makes a swoop, and by the time its effort is over, probably the first is ready for a repetition. As may be supposed, from the ordinary flight of birds, space rolls rapidly away during this conflict. High in air are the three birds,—sometimes almost specks in the distance; and, far behind, toil the horsemen, every head turned aloft, regardless of the rabbit-burrows on all sides, each anxiously straining his optics to see somewhat of the chase, oftentimes in a whirlwind of dust. Three or four miles were sometimes thus traversed. When the fatal stroke is given, generally at the insertion of the neck with the body, the blow is audible at some distance. No words can describe the aspect of a successful falcon, as, trampling upon its prostrate foe, it eats the food presented; for if the bird's behaviour has been good, it is "fed up" by way of encouragement. The form appears dilated by pride and successful daring,—now it fastens voraciously on the meat, and now pulls feathers in its wantonness from the

trembling heron, which, with its long neck carefully imprisoned under the falconer's leg, is held down lest its beak should injure the triumphant hawk.

No wonder that a heron which has once undergone this ordeal is worthless for future sport. It shrieks in dismay at the first sight of the enemy, disgorges its stock of fish, and very often wheels round and round towards the ground, crying out in impotent anguish, without being touched by the hawk. Some herons were retained to practice the young and imperfect falcons with; the rest were released, with a thin brass plate bent around one leg, and the date of capture marked thereon.

Occasionally the Norfolk plover (*Ædicnemus crepitans*) was pursued, and gave very good flights. The carrion crow also, and the magpie, were in turn objects of sport.

The mews in which the falcons were kept were upon the top of an eminence, at the side of a plantation, in which was a lofty ash; and a flag flying at "The High Ash" was a signal to all the country round that hawking would take place that afternoon.

Great vexation often occurred from the loss of the best hawks by their raking off in pursuit of ignoble game; a wood pigeon, for instance, is a temptation no hawk can resist. Probably natural love for this prey is made stronger by a tame pigeon being the usual lure for recalling a falcon. I was present one afternoon when the Bull-dog, a perfect phoenix, was thus lost; she had been flown only ten times and had struck down nine herons. The first resource of a reclaimed hawk preying for itself is very often a rook; the Bull-dog was seen to strike down a rook the next morning, by the falconer who was seeking his lost one.

The names given to hawks are sometimes very incongruous. In Colonel Thornton's *Tour in Scotland*, his

falcons, if memory serves, were Miss L. M<sup>c</sup>Intosh and Miss M<sup>c</sup>Gregor; whilst, as a contrast, his tercel, probably blood relations to these fair ones, were Death and the Devil.

Many years ago, the first time indeed I ever witnessed the hawking at Didlington, just as I joined the assemblage, a cry was raised by several voices of, "bring Mrs. Waddington." Two ladies in an open carriage leaned out anxiously as I was passing, and again I heard, "Here comes Mrs. Waddington,—now we shall see some sport." What could interest all so much in this particular personage I knew not, till I saw the crowd opening, and the falconer appeared, talking to and caressing the flower of his flock, his favourite bird.

It would be at the present day almost impossible to revive this sport generally: even in the very open country around Didlington complaints and heartburnings arose on account of damage. A mass of information upon this subject is contained in a Latin volume published at Leipsic, 1788, by Professor Schneider, containing the work of the Emperor Frederic II., "*De arte venaudi cum avibus*;" Albertus Magnus "*De Falconibus*;" and also a digest of Huber's valuable work "*Sur le Vol des Oiseaux de Proie*," Genève, 1784; and of several ancient and very rare works on Falconry: some of these are now hardly to be found, but in a few national libraries on the continent. Besides the Emperor Frederic, our own immortal Alfred did not think it unbecoming to meditate and write on this engrossing subject, and another man of rank appears in particular to have produced a perfect text-book on hawking: "*La Fauconnerie de Charles d'Arcussia de Capre, Seigneur d'Esparron, de Pallières et du Revest, en Provence*," is quoted with the highest praise by Buffon and others.

In these days of misfortune for falcons, no emperor,

alas! can be found to write a lengthy chapter, "De inquietationibus et diverberationibus, quas facit falco ciliatus, et de differentiis, inter inquietationem, et diverberationem." His enumeration of the qualities of a falconer is amusing. He does not by-the-bye mention where these admirable Crichtons were found. "Sit mediocris staturæ,—sit perfecti ingenii,—bonæ memoriæ—levis auditu—acuti visus—homo magnæ vocis—sit agilis et promptus—sciat natære—sit audax—non somnolentus—non gulosus—non ebriosus—non iracundas—non piger aut negligens—non gyrovagus (qu.) given to gossip from house to house?" &c. &c. He reminds his readers, here, of the dialogue between Rasselas and Imlac, on the qualifications of a poet, in which the Abyssinian prince exclaims in despair, "Enough! thou hast convinced me that no mortal can ever be a poet." The east appears to have been the nursery of this science: the same imperial writer states that the hood was derived from thence, and speaks with complacency of the very skilful falconers who were sent to him by Arabian princes. "Reges Arabum" is the term, which Schneider in his note upon it renders Soldan of Babylon.

Some of the old falconers, Jean de Franchieres for instance, appear to have been aware of the change which the plumage of the Peregrine undergoes in different ages. This might have been expected from men who carefully nurtured and watched these birds from month to month, from year to year; and the errors of division and subdivision into Dusky Falcon, Red Falcon, Falcon Gentil, as species, &c. may have arisen at a somewhat later period.

Two species of falcon, formerly prized, have been involved in much obscurity,—the Saker,\* which in size

\* This name *Saker* is oriental. In D'Obsonville's *Essays on the Natural History of India*, amongst "Birds of Prey," he mentions the Saker;—in Persian, *Sakr*; in Hindostanee, *Sicra*.

and courage rivalled or excelled the Gyr-falcon, and the Lanner, which came from Sicily, Malta, and the south and east. Temminck makes no mention of this last species in the edition of 1815. Pennant has described a bird as the Lanner, taken in a decoy whilst pursuing ducks; but it was probably a Peregrine Falcon in immature plumage. A note in Sir W. Jardine's *British Birds*, composing a volume of the *Naturalists' Library*, throws some light on this species. "Mr. Gould has," it is here said, "figured the *Falco Lanarius* of Linnæus, a bird of the south of Europe, from specimens furnished by Monsieur Temminck. But the name Lanner, seems to have been sometimes given to the young of the Peregrine Falcon, and consequently confusion arose from believing the Lanner to be a British bird." Schneider speaks of it as entirely a southern species; that it could not be used in winter,—"*Hyeme inutilis*." At the time he wrote, however, falconry had declined, and ornithology not sufficiently advanced to enable him to determine the species with certainty; but all the old works on hawking tend to establish the bird as a distinct species. After dividing the Peregrine in different plumages into two or three kinds, these treatises always add that the birds are alike in feeding, habits, and flight. But the Lanner stood alone in its peculiarities; rather inferior to the Peregrine in swiftness and boldness, it was noted for docility and perseverance; it hung long upon wing without fatigue, remembered the lessons taught faithfully, would make repeated flights in the same morning, and was far less nice in its food than the other; it was the hawk recommended to young and eager falconers, as being the most difficult to spoil in flight, or injure in feeding.

Barbary falcons were in great reputation; and the eager zest for this amusement is proved by the fact,

that even the New World was laid under contribution. At the end of the 16th century, and at the beginning of the 17th, a particular species of falcon was brought from America, (*Falcones Aletas*,) Alethes or Alete of the French and Spaniards. Here follow the words of Schneider, whilst quoting from Charles d'Arcussia: "Cor-pore sunt mari falconi æquales, colore etiam dorsi similes. *Pectus colore pallido aurantio nitet, lunula brunnea in abdomine versus femora conspicitur. Volatu terrestri celeri in venatione perdicum excellunt solitarii.*" After carefully searching Wilson's descriptions of American hawks, I cannot but venture a surmise that his *Falco Borealis* (Red-tailed Hawk) is the bird which was thus imported. In the first place size corresponds; he describes it as "twenty inches in length, and three feet nine in extent; head and back of the neck dark brown; sides of neck ferruginous, streaked with brown; back and shoulders deep brown; wings dusky, barred with blackish; tail bright red-brown with one black band; lower parts brownish white; *breast ferruginous, streaked with dark brown; across the belly a band of interrupted spots of brown.*" In Huber's work, "Sur le Vol des Oiseaux de Proie," among the birds of "Haut Volerie," is, sixth in number, a figure of the "Alethe," the breast turned to the spectator that the peculiar crescent may be seen. Is not this the ferruginous breast, which "pallido aurantio nitet" in the former description? and is not the band of spots across the belly the "lunula brunnea in abdomine versus femora?" Wilson speaks of this bird as generally dispersed in the United States, and not migratory. In a list of hawks in the first chapter of Walton's *Angler*, the "Waskite from Virginia" is mentioned. The "volatu terrestri celeri in venatione perdicum excellunt" is not incongruous either. Wilson says "they prow round the

plantations, looking out for vagrant chickens, their method of seizing which is, by sweeping swiftly over the spot, grappling them with their talons, and bearing them away to the woods." The brown of the upper plumage would agree with the immature Peregrine, "*colore dorsi similis falconi*." And Schneider, from the same authority as before, asserts that this species had the fault of the goshawk—a proneness to fly off with the bird it struck down, and devour it in some private place out of the sight of its master. This agrees with Wilson's description of its mode of preying. As much as three hundred Spanish crowns are said to have been given for one of these birds, recently imported, and with education only half completed. Of course, the more ornithology advances, the more easy will it become to clear up these difficulties in fixing species formerly celebrated. Half a century ago the obstacles were great indeed. Schneider brought to the attempt universal knowledge of language, warm zeal for Natural History, and most extensive reading, both as to general information, and the subject he particularly treated of. Yet he seems to have been somewhat disheartened, and concludes his essay, "*De Avium rapacium Genere, &c.*" in these words: "It is plain from this that the efforts even of learned men are vain, when from the description of travellers, or from the casual sight of living or dead birds, they attempt to class the hawks and falcons." Had he lived at this day, and been able to avail himself of the illustrations and the authorities extant, his language would doubtless have been somewhat different.

The importation of hawks was not accidental, but they were regular objects of traffic. A letter from Tregonwell Frampton, no date, but written 1670—80, is extant, in which he says, "Sr. I have a man now in London that can carry hawkes: pray, as soon as this comes to your hands,

goe to Mr. Chiffinch, and if the hawkes are come in, send me down by my man the largest and handsomest hawkes that are brought over in the Russian shippes. If my man brings down the hawkes, it will save me 30s. a-piece, and there will be no fear of changing the hawkes. If the hawkes be not come in in three or four days, let my man come away presently, and I will desire Mr. Mompesson to bring down the hawkes, but you must make some privat marke in them, and send me word what it is, that I may be sure that they may not be changed.—I am, your kingsman and servant, W. T. Frampton.” Another letter from the same, May, 1682, speaks of “a beautiful Moscovy Hawke to be parted with. She is every bodis munney, from the marchant she is worth £10.” These letters prove first, the regular importation of hawks; and next, the care and heavy expense requisite on moving them. Thirty shillings in those days was a considerable sum; and the worthy Frampton seems to have been afraid to trust even his friend Mompesson entirely, in the carriage of so precious a commodity. A letter from Sir Anthony Pell, 1621, is given by Pennant in the Appendix to his Birds, for bidding any one importing hawks to move them from shipboard, or the custom-house, until the said Pell, master falconer, should have made his selection for the king’s use. It is singular, that the name of the last family practising the art of hawking in England, natives of Falconswaerd, should be also Pell or Pells.

With regard to the Sacre or Saker, male Sakeret or Sacret, it is singular that we should here have so completely lost sight of the species referred to. The Emperor Frederic expressly says, “The Saker breeds in more temperate climates than the Jer Falcon, and I am told in trees; but I suspect this is from a want of rocks in those regions, otherwise, being a genuine falcon, it would prefer them.

Especially does it breed in Britain and Bulgaria." Albertus Magnus corroborates the fact of its being common in England: he says, "Primum autem genus nobilium falconum est quod quidam Sacrum vocant. Symmachus autem vocat ipsum Britannicum, et quidam vocant ælium, quasi aerinum falconem." Here we have it expressly termed the British Hawk. Albertus gives an interesting account of its prowess and excellence; that it would not only overcome the largest species of bird, but might be used successfully in the chase of the roebuck; that at the very sight of it all birds fled to shelter, with screams of dismay; that it was of the most docile and generous disposition, showing strong attachment to its master, and to the dogs, its companions in the chase; that it flew more willingly in their presence, "as if glorying to show its strength before them;" that in luring or recalling it to the fist, it was necessary for the falconer to use full force of lungs, on account of the very lofty flight of this falcon. And here he mentions the most curious fact of all: that this species seemed to rise above the sordid appetite for food, which is the general bond between man and the falcon; it had somewhat of the attachment of the dog. If, says he, this bird is lost by its lofty flight, there is not the same danger as exists with other kinds of hawk, as, of its own accord, it is wont generally to return to its home. The rapidity and force of its flight caused particular pieces of artillery to be called Sakers. Charles d'Arcussia states that it was a male of this species, a Sacret, belonging to Henry II. of France, which performed the feat often mentioned in books of Natural History, (the indefinite term Falcon being used.) Being lost after ten in the morning from Paris, it was, at four in the afternoon of the next day, taken at Malta. This occurred in the month of March; at which season of pairing,

even reclaimed hawks were uneasy and restless, and prone to stray away.

The Sacre of old and the Jer Falcon appear to have had much similarity. An interesting letter from Mr. Hoy, in the *Magazine of Natural History* for 1833, p. 107, shows plainly the distinction between the Iceland and Norwegian falcons; in fact, that two species have been united under the term Jer Falcon:—may not one of these have been the Sacre? Its ceasing to breed in England has occurred with many other birds, and is no impediment. Mr. Hoy thinks that the Sacre and the Lanner were in fact the same; but old books of Hawking contain elaborate descriptions of each, imputing to them most opposite qualities.

In conclusion, may be mentioned a memorandum from the L'Estrange *Household-book*, which shows how superior the training of the old falconers was. Six rabbits are noted as killed by the Sper-hawke. Now in these days a Sparrow-hawk, at the best, can barely take partridges; when full in flight the bird is too strong for the hawk. From separate entries, it appears that Goshawks, Falcons, Sparrow-hawks, and Hobbies, were kept at the same time by the possessor of Hunstanton.

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Amongst Owls, the TAWNY OWL (*Strix stridula*) and the WHITE OWL (*Strix flammea*) may be called common. The first often escapes notice from the dense woods it inhabits, usually perched in the day-time in the thickest shade of a spruce or silver fir: the other, from its services as a mouser, is allowed to come and go unharmed, and

even encouraged. A specimen of that large and beautiful species, the SNOWY OWL (*Strix myctea*), is mentioned by Mr. Yarrell as having been killed in the county in 1814. Mr. Gurney possesses a specimen of the SCOPS OWL (*Strix scops*), which there is reason to believe was killed near Norwich. Mr. Penrice has, in his collection, the same species, killed at Brundall. Mr. Paget says, in his List of Yarmouth Birds, that the LITTLE OWL (*Strix passerina*) has occurred in that neighbourhood more than once. Mr. Hunt, in his work on Birds, mentions a nest taken near Norwich. The LONG-EARED OWL (*Strix otus*) is unfrequent; some migrate hither in autumn, and a few occasionally breed here. This has sometimes been the case in the woods between Holt and Cromer, but the bird may be considered altogether rare. The SHORT-EARED OWL (*Strix brachyotus*) is far more frequent in the autumn, as when they first arrive they are often found in the low grounds in small parties of five and six. Their arrival is hailed by Norfolk sportsmen as betokening the arrival of woodcocks and snipes. The bird has also, in a few cases, bred in Norfolk; at Feltwell, for instance. It is quicker on wing and more lively than the other English species; is never molested, as far as I have observed—and I have seen the bird continually—by the attacks of small birds, which on the contrary show considerable fear in its presence. Its power of wing is great. I saw one in the middle of a sunshiny day attacked by two crows. The light did not seem to incommode it, as it rose in long spiral sweeps, striking first at one crow and then at the other. The birds rose so high that the eye could hardly follow them; at length the crows seemed discomfited, and gave up the attempt, when the owl descended a little and then crossed the country, still at a great height, flying in a straight line until out of sight.

THE GREAT SHRIKE (*Lanius excubitor*) is uncommon, but occurs occasionally, generally in winter. The RED-BACKED SHRIKE (*Lanius collurio*) is pretty general; the young brought up from the nest grow exceedingly tame and make very engaging pets.

I find amongst my friend Girdlestone's notes the following:—"Visited Mr. Downes, who tells me that, having given up Falconry, he amuses himself by seeing his tame Shrike catch flies in the room in which he sits."

That very rare bird *Lanius rufus* (the WOODCHAT) has been killed near Yarmouth. Mr. Hammond's collection also contained one killed near Swaffham.

THE RAVEN (*Corvus corax*) is seldom found breeding here; when it does so, its nest is sure to be plundered. In winter, especially if severe, their numbers increase. The CARRION CROW (*Corvus corone*) is frequent, especially during summer, in the marshes, preying on the eggs and young of the lapwing and other marsh birds. In the uplands its numbers are kept under by game preservation. Of late years, there has been great diminution in the number of HOODED or GREY CROWS (*Corvus cornix*.) They do not visit Norfolk so much as formerly.

Thus far I endeavoured to mention by name all the birds found in this district, according to their classification; but were I to persevere, I should far exceed the limits I have marked out for myself in this slight sketch. Mr. Paget's *Essay on the Natural History of Yarmouth* comprises a very great part of the Ornithology of Norfolk, and must be perused with the greatest interest by any one at all fond of the study,—mingled perhaps with regret that, instead of a thin, it is not a thick octavo.

But although Yarmouth is perhaps the best spot in the county for researches in Natural History, and Breedon itself is as it were an emporium of the rarer Water Fowl,

yet, in reviewing a whole county, some species naturally occur which did not come within Mr. Paget's list; and others, the habits of which, or their being peculiar to this district, render them interesting to us. Of these I shall endeavour to make a list.

THE GOLDEN ORIOLE (*Oriolus Galbula*) has occurred several times in the county; indeed, has been said to have bred in Mr. Lucas's garden at Ormesby. In an immature state, this bird is not very striking in appearance, and may occur sometimes without being detected. I know of one instance of a fine old male in full beauty shot in Norfolk; but the majority of specimens have been young birds.

THE WATER OUZEL or DIPPER (*Cinclus Europæus*) has lately been shot at Hellesdon, and the specimen is in the Norwich Museum. This bird has occurred once near Yarmouth. Mr. Lombe informed me, some years back, that he had good reasons for believing that this bird had been seen on the Marlingford stream. A friend of mine whilst fishing at Saxthorpe, many years back, saw one close to him, so as to be able to observe it well. It is a great point gained to have established this as a Norfolk bird, and I think it might be discovered as a migrant amongst us occasionally, by close observation.

Mr. Gurney possesses a male specimen of the BLUE-THROATED REDSTART (*Motacilla suecica*), sent to him in a fresh state from Yarmouth in 1841.

THE ALPINE SWIFT (*Cypselus Alpinus*) has been lately shot at Buckenham in this county.

THE REED WARBLER (*Sylvia arundinacea*) is frequent amongst the broads.

A pair of SAVI'S WARBLER (*Salicaria Luscinoides* of Mr. Yarrell) were sent to Mr. Gurney from South Walsingham, in the spring of 1841; one of these birds is in

the Museum. Another was procured many years ago by the Rev. Mr. Brown.

THE GARDEN WARBLER (*Sylvia hortensis*) is not uncommon. Also the WOOD WARBLER (*Sylvia sylvicola*); the WILLOW WARBLER (*Sylvia trochilus*); and the CHIFF CHAFF (*Sylvia hippolais*). The last is the rarest.

I have mentioned these little birds particularly, as they are some of them not generally known and imperfectly understood. In 1824, in company with a friend, I had an opportunity of observing that very rare bird the ALPINE WARBLER (*Accentor Alpinus*) on a grass plat at Oulton near Lowestoft. It moved very nimbly to and fro, suffering a near approach, and we considered it attentively. It was a species then almost unknown to English Ornithology. Dr. Thackeray's specimen, found also upon a grass plat, was, I believe, the only one which had then occurred in England.

THE FIRE-CRESTED REGULUS (*Regulus ignicapillus*) is mentioned by Mr. Yarrell as having been taken on the rigging of a vessel off this coast. I remember a specimen which year after year occupied the same position in a bird-stuffer's window in this city. The bird probably breeds regularly with us, in much smaller numbers, however, than the common Golden-crested Wren. Mr. Fisher of Yarmouth gave a man a commission to get him all the Gold-crests he could, (with a view to obtaining this first species). When about thirty had been brought, a Fire-crested Wren appeared amongst the victims.

THE GREY-HEADED WAGTAIL (*Motacilla neglecta* of Mr. Gould) has been killed at Sherringham. This specimen is in the Norwich Museum.

RICHARD'S PIPIT (*Anthus Richardi*) has been found at Yarmouth, in both summer and winter plumage. These specimens are now in the Norwich Museum.

AN AMERICAN SHORE LARK (*Alauda alpestris*) was killed at Sherringham some years back, and is in the collection of Mr. Lombe.

It is not certain whether the ORTOLAN (*Emberiza hortulana*) has ever been found in Norfolk; a specimen shown to Mr. Gurney was said to have been killed in the county.

THE TREE SPARROW (*Passer montana*) occasionally breeds in the neighbourhood of Yarmouth. This has been lately ascertained beyond doubt. From Mr. Hewitson's observations, this does not seem so local a species as has been supposed.

A pair of the PINE GROSBEEK (*Loxia enucleator*) are now preserved in Yarmouth, shot near that place, and which are said to have had a nest, which unfortunately was destroyed.

THE SNOW BUNTING (*Plectrophanes nivalis*) comes over in considerable flocks, late in autumn. When they first arrive, they settle the instant they reach terra firma, and often remain for some time on the shingle of the beach, flying a short distance, and then alighting in as close a body as possible, so as to have at a distance the appearance of a variegated piece of carpet.

I believe that one of those beautiful birds, the ROSE-COLOURED PASTOR (*Pastor roscus*), has been shot at Yarmouth since the several specimens mentioned by Mr. Paget.

A specimen of the RED-WINGED STARLING of America (*Sturnus predatorius*) came into the possession of Mr. Gurney in a fresh state during June 1842; was said to have been shot near a broad, and to have had another of the same species in company with it. It was a male bird, in good condition and in almost adult plumage; the stomach full of the remains of beetles.

I have detailed these circumstances, as it seems probable, if these points were so, that these foreign visitants intended to nest here. Wilson says they resort to low grounds where reeds and alders grow for that purpose, and that the bird in America is often termed Marsh Blackbird or Swamp Bird.

According to Mr. Yarrell, two specimens of the GREAT BLACK WOODPECKER (*Picus martius*) were killed some years back in a wood near Scole inn. The LESSER SPOTTED WOODPECKER (*Picus minor*) has occurred near Norwich and elsewhere, but the bird is not often recognized. Many of the smaller species of arboreal birds escape by their haunts not being rightly understood. Mr. Gould, in his *Birds of Europe*, remarks that this small Woodpecker has occurred repeatedly in Kensington gardens. It frequents very large and lofty trees, searching amongst the topmost branches for its food, and, on the approach of any one, creeps round to the other side of the bough and remains motionless. Mr. Gould considers it as in reality far more common than it appears. One of the great attractions of the study of Natural History is, the hope of making some discovery for oneself. This may especially be done in the study of the smaller birds. Some of the rarest species have been first recognized by accident. The Fire-crested *Regulus* was rescued from the jaws of a cat, which was about to make a meal upon it.

THE ROLLER (*Coracias garrula*) has been killed at Holkham; another at Antingham; and one in immature plumage at Acle in 1832.\* The wing of a bird of this

\* Whilst these pages are in preparation, a Nutcracker (*Nucifraga caryocatactes*) has been killed near Yarmouth, and is now in the possession of Mr. Gurney.

species was shown me, which was picked up dead upon the beach at Brancaster, many years back. The one in the Museum is from North Walsham.

A specimen of the BEE-EATER (*Merops apiaster*) was killed lately at Yarmouth; and there is one in the Museum, killed at Gislegham many years ago.

THE HOOPOE (*Upupa epops*) occurs every two or three years in some part or another of the county. It has in more than one instance appeared in spring in pairs; showing a disposition to breed here. There is no point in ornithology more deserving of attention than the nidification of the rarer birds, and of occasional visitants amongst us. Discoveries are no doubt to be made by any one who enters on this study with patient research. I need only allude, for instance, to the discovery made by Mr. Doubleday, that the Hawfinch (*Loxia coccythraustes*) breeds regularly in Epping forest.

Especially do the nests of some of the rarer warblers deserve attention; they are seldom found and little understood. There is no part of Europe where the smaller birds and their habits can be better observed than amongst ourselves. They enjoy with us comparative immunity. On the continent, in very many places, it is different. In Tuscany, for instance, every peasant is a bird-catcher; the markets are filled with the smaller birds; the sacred Robin is foremost as a delicacy. The migration of the thrush is there expected with as much eagerness as the arrival of the woodcock; and a comparative desolation of animal life is the consequence, as you roam about looking for birds. No flocks of chaffinches checker the boughs of the lofty ash—no noisy flock of sparrows wing their way from the garden to the house top—all is solitude and silence.

The general taste for planting which has arisen of late years, has caused great increase in the numbers of certain

species. When Bewick first published his admirable work, he seems to have found the Missel Thrush a scarce bird: it is now common enough.

THE TURTLE DOVE (*Columba Turtur*) was formerly but an occasional migrant hither, and very seldom bred with us. It is now generally scattered here and there, wherever there are fir and larch plantations. I have no doubt that, could they all have been ascertained, eight or ten nests of this bird were hatched last year in the small parish in which I reside: without much search, two or three nests were easily found. The same little boy procured me two or three young ones with no difficulty. The Turtle breeds lower in the tree than the Ringdove, and chooses a smaller tree. Of course the numbers of the Ring and Stock Dove, the Blackbird and all of the Thrush kind, which breed here, are augmented by the same cause; as also is the case with a much more curious bird, the GOATSUCKER (*Caprimulgus Europæus*) which appears very much on the increase; indeed, I have of late years seen three or four upon wing at the same time. I might instance also the CROSSBILL (*Loxia curvirostra*) which has become much more frequent in occurrence of late years, and often in considerable flocks. Of course it is superfluous to observe that many smaller birds, all the Titmice for instance, and others, partake in the same effects. We see here that providential system of compensation at work, which pervades all nature. By reclaiming waste lands and draining marshes, we gradually lose certain species; but by cultivation and planting, we either encourage or actually gain others. The greatest achievement is the one lately carried through in the Highlands,—the complete restoration of the Cappercaillie. This noble bird was annihilated with the pine forests which sheltered him. The mountains were again clothed with wood, and,

without much trouble, he was reinstated in his former possessions.

Similar success, I have no doubt, might attend us in this county, if similar encouragement were extended to a noble bird now all but extinct, and within the last few years peculiar to Norfolk,—I mean the BUSTARD. It was formerly found in Yorkshire and Wiltshire, but has long been unknown in the first situation, indeed I believe in both. The last observed on Salisbury plain was in 1813. The few which remain in Norfolk are said to be all females; at least, in the case of one shot lately at Lexham, the person who shot it said that there were several others in the vicinity, but all hens. The same, I am informed, was the case with seven of these birds which frequented Massingham heath a few years back. One Bustard, three years back, was observed in the parish of Bridgham, near Harling. In general they are the wildest of birds, hardly suffering approach within a quarter of a mile; but on this occasion, the sportsman who saw the Bustard was walking rapidly with his head down to avoid a cutting November blast, when his attention was drawn to the pointer at his side, which seemed occupied in looking intently at something before them. He lifted his head, and saw an immense bird walking leisurely away within thirty yards of him. At first he imagined it some curious fowl which had strayed from a neighbouring farm, when suddenly it rose and flew; he fired in a hurry, and wounded but did not secure it. It was seen afterwards once or twice in the vicinity, but, having had warning, was perfectly inaccessible. Mr. Daniell, in his *Rural Sports*, notices a similar instance, in which a Bustard on Salisbury plain permitted a sportsman to approach, with no concealment, and kill it with a common fowling-piece.

The nearest approach I have known these birds make

to Norwich in our times, was some twenty-five years back, when several were observed in Wilby field, between Attleburgh and Harling, within twenty miles of Norwich. But one is still in the possession of a neighbouring gentleman, which was taken fifty or sixty years back at Sprowston, within two miles of this city, by means of greyhounds. This bird was captured on a very windy morning after a tempestuous night. It had apparently sought shelter near a lofty fence; the greyhounds came suddenly through a gate close to it, and seized it before able to take wing. The beautiful back-ground of Bewick's plate of the Bustard, which represents two greyhounds and a sportsman in full pursuit, is familiar to all; but I believe that in an open country it is vain to attempt thus to take this bird; the plan may succeed when the Bustard is surprised near at hand, but its powers of flight are very good.

The mode of nesting which the Bustard adopts, and the small number of its eggs, have tended much to its extinction. The eggs are but two in number, and the nest is made in spring corn. The general improvement in agriculture, the universal system of weeding, and the large size of the bird, render it very unlikely that such a nest should escape observation; and as of late years the egg has been worth a guinea to the person who found it, there was little chance of its remaining untaken.

Lord Albemarle informed me that, many years back, his keeper found a Bustard sitting upon her nest in a pea-field at Eldon, near Thetford. She admitted of as near approach as a pheasant does under similar circumstances; and he thought it possible to take her alive upon her nest by throwing a casting net over her. The feat very nearly succeeded; but she just managed to slip her head under the leaded line of the net, and so escaped. The two eggs

were taken and placed under a hen and produced (which was singular) two male birds, which were long kept in confinement.

I have mentioned this fact particularly, as it throws light on the manners of the Bustard, when nesting, which seem diametrically opposite to what might have been expected from so wild and wandering a bird. This closeness of sitting and great care of eggs would of course render it easier to restore the bird amongst us. It would not probably be necessary to resort to any remote part of the continent. The cappercaillie returned to Britain from the remote forests of Norway; but a friend of mine, well versed in birds, has known more than one Bustard brought to the market at Abbeville, close to Boulogne. Another circumstance which is in favour of the revival of this noble bird, is, that the general culture of the turnip would now offer it an abundance of food in severe weather. Formerly, in snow they were reduced to great straits. Some fifty years back, a keeper of the name of Turner, in the employ of the Colquhoun family at Wretham, used to kill many Bustards in the snow by looking out for their tracks and then feeding them for a day or two with cabbages. He next constructed a battery of three large duck guns, bearing on the spot where the food lay, and, coming before daylight, secreted himself in a hole dug some hundred and fifty yards from the guns. By means of a long string to the triggers, he used to effect a general discharge on the first favorable opportunity, and in this way he once obtained seven Bustards at a shot. A Bustard was taken at Palling some years back, a male bird. This is exactly the opposite part of the county from its usual haunt, and would cause migration to be suspected in this particular instance. A veteran sportsman, Sir John Shelley, says that forty years ago parties used to be made to go and

look at the Bustards, by those who visited at the Duke of Grafton's and other great houses in the neighbourhood of Thetford, and that a distant view of some of these birds could always be obtained.

THE LITTLE BUSTARD (*Otis tetrax*) has been procured in this county several times. The last killed was shot near Wisbech. In three instances in which I have known the circumstances of this bird's appearance, it has without variation been found in a turnip field; when I have observed it on the continent, it has been in rushy meadows, by the side of rivers.

Some of the VIRGINIAN COLIN (*Ortyx Virginianus*) were turned off many years ago at Holkham; they are of erratic habits, and scattered themselves about here and there. A nest of one of these birds was taken in a marsh at Barton; there must have been at least ten or a dozen eggs: I had two or three of them. They were sold at first under the name of Teal's eggs, but Mr. Yarrell, Mr. Hewitson, and other first-rate authorities, have concurred in assigning them to this bird. A fen-man in that parish told me that, at the time of this discovery, he observed a bird like a partridge, but smaller, in the locality where the nest was afterwards found.

With regard to the RED-LEGGED PARTRIDGE (*Perdix rufa*), which is common in some parts of this district and almost unknown in others, I think observation would prove this bird at least partially migratory. I have known it plentiful upon a farm one season, and the very next year I walked over the same ground without seeing a single Red Partridge. It has been found in a tired state on the beach near Lowestoft; and I have lately heard, from good authority, of its being picked up by hand, quite exhausted, on Yarmouth denes. These facts would rather lead to an inference that the bird sometimes comes

to us from abroad. Its powers of flight are probably equal to those of the quail, which is a regular migrant.\*

This last-mentioned QUAIL (*Perdix coturnix*) has become very scarce of late years. Formerly it was common in the immediate vicinity of this city; often found at Earlam, Thorpe, Plumstead, and other neighbouring places; was plentiful twenty-five or thirty years back in parts of Cambridgeshire,—the Gogmagog Hills, for instance. I have not seen one in flight for many years.

THE LANDRAIL (*Rallus crex*) also has much decreased in number. The migrations of birds appear to be governed sometimes by very partial laws. If the position of Folkstone and Boulogne be considered, we might expect that such a wandering bird as a Quail would often skim across the channel and visit Britain; on the contrary, Landrails are common in the neighbourhood of Folkstone, and Quails are not. If we examine the vicinity of Boulogne, the Quail is the most common of the two.

I should have mentioned a bird immediately after I spoke of the Bustard, which is very local in its habits, and being as plentiful in parts of our county as anywhere in England, has obtained the name of NORFOLK PLOVER,—the general term is STONE CURLEW (*Charadrius ædicnemus*.) In comparison with the numbers of these birds which are seen congregated in autumn, they appear very scarce throughout the summer. The open heaths and very large fields adjoining are their favourite haunts. The young follow the parents when full grown, and the strongest attachment seems then to subsist between them. One was shot this last summer in an open field near my

\* In the beginning of January 1845, I was called into a bird-preserver's shop to look at a curious hybrid, believed to be bred between a red partridge and a pheasant. It came from Mr. Gurdon's of Letton.

house, and being only slightly wounded in the pinion, was run down with some difficulty, brought home alive, and turned into a walled garden. Next morning at sunrise, according to habit, the prisoner was very clamorous, uttering its peculiar cry repeatedly for about half an hour. When the servants rose, a young bird was observed in the court yard, within a few yards of the house, pacing backwards and forwards under the garden wall, which must have come either through an open doorway or through a thick clipped fence; for, though nearly full grown, its powers of flight seemed imperfectly developed. Repeated attempts were made for hours to take it, which it eluded by swiftness of foot, and hid itself amongst the shrubs, returning again to the wall as soon as disturbance ceased. At last, by careful watching, it was driven into a corner and secured. Being turned into the garden, it seemed delighted to rejoin the parent, whose cry must have brought it nearly half a mile. The most singular part of the affair was, that, as the day advanced, the Plover in the garden was totally silent; but this had no effect in causing its young one to leave the place: having once discovered the place of captivity, it seemed determined to share the prison at all hazards. Mr. Paget, as his catalogue has reference to the vicinity of Yarmouth, justly notes this bird as rare; but towards Thetford and Swaffham, where the country is open, it is abundant. It may be observed in parties of from 80 to 100 before its migration. The greatest allurements to them is an extensive new plantation, made in the open country, and on the improved plan of double trenching the soil. The loosened ground affords better means of obtaining worms and beetles, their usual food; and the birds appear particularly to delight in the partial concealment which the young trees afford in the first year or two. As soon as the trees attain any

size, all attraction ceases. This bird, with us, is, I believe, reckoned worthless for the table, being very hard and dry; in India, where it is called the Goggle-eyed Florican, it is in great repute. It stays very late before it migrates,—in mild seasons to the very end of November, and even into December.

THE DOTTREL (*Charadius Morinellus*) should be mentioned in this list, although a rare and uncertain visitant. It is a very local bird; was formerly abundant in Cambridgeshire at the time of the vernal migration; is found about Barton Mills occasionally. It is said to haunt the sheep-folds early in a morning for the sake of beetles, which are attracted thither by the warmth of the flock. It migrates irregularly, and in passage making a very short halt is often overlooked. One or two have been killed on the verge of Mousehold heath, close by this city. A flock of about fifty was observed several years back in Eccles, the parish in which I reside. A sportsman went in pursuit of them, and obtained fourteen.

I observed before that almost every one who takes up the study of nature, does so either avowedly or tacitly hoping that he may make some discovery for himself. The science and the boundless variety and novelty to be found in it, are better appreciated in the present day than formerly. In the days of my boyhood, there seemed to be a general opinion that Bewick alone had exhausted the subject of British Ornithology, instead of merely laying down the outlines. Wherever persevering investigation is at work, new facts speedily come to light. What, for instance, is the reason that so much of what is curious and valuable in Natural History has been noticed and verified in the immediate vicinity of the metropolis? It is because there are good observers. The dweller in gloom and smoke rushes forth to the country,

determined to use his eyes and his understanding ; and although the hills about Hampstead and Highgate are his only Alps and Pyrenees, and Kensington gardens perhaps his forest, he sees much of what is interesting and curious because he looks for it earnestly. In taking up the study of nature, we find an antidote against what is called *ennui* ; what used to be termed a solitary walk, is no longer dreaded, for in fact it no longer appears lonely : not only is knowledge increased, and a useful stimulus given to the mind at present, but the exquisite adaptation of each creature to its allotted place, the agreement of parts with the whole, lead to thoughts useful for the future. In short, no one can *rightly* enter upon these pursuits without having soon cause to pronounce them profitable both here and hereafter.

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### WATER BIRDS.

THIS is the part of Ornithology in which our county is most rich. The Norfolk fens must in days of yore have literally swarmed with different species of birds. If we glance at the position of Norfolk and Suffolk upon the map, we at once perceive that they stand out as it were offering an asylum to the storm-beaten bird coming from the ocean. If we consider the great variety of soil to be found in the marshy part of the county, and the way in which swamp and high ground are continually intermingled, it is plain that formerly, ere cultivation was so general as at present, the Norfolk fens must have offered the fairest retreat to water birds, not only for an occasional

visit, but also for the task of breeding and rearing their young. From the information given at the present day by naturalists who visit northern latitudes,—I may for instance mention by name Mr. Hewitson and Mr. Dann,—it would appear that water birds do not so much affect an interminable swamp, with no firm ground mixed with it, as they do places where dwarf trees and shrubs come down to the margin of the marsh. In the original state of a considerable part of Norfolk, birds could often find a habitat of this nature. A hill, perhaps clothed with furze, sloped gradually to the fen,—on the margin of the marsh high sedges were intermixed,—further on in the distance lay a broad, and the approach to it grew more and more a quagmire, until land and water mingled imperceptibly together. Commons of this nature existed in many parts of the county, until the extravagant prices caused by continued war excited a general eagerness to enclose all available land. This improvement and extension of agriculture struck the first blow at the feathered inhabitants of the waste: they struggled on, however, through evil fortune, their numbers becoming gradually less and less, until many of them, formerly common, are now with us but a name.

But Norfolk, even in its present state, is the last stronghold of several aquatic species; and it is most singular how universal has been the omission of this district amongst older writers on Natural History. Lincolnshire, Cambridgeshire, and Holderness, were mentioned by all; but Norfolk, although perhaps richer than any of these, seemed consigned to total oblivion. This was not the case with prose writers alone. Drayton, in his *Polyolbion*, the accuracy of description in which is well known, occupies pages in the enumeration of different species of birds found in Lincolnshire, but dismisses poor Norfolk with a

passing intimation that the open country around Brandon is admirably suited to hawking. The earliest notices of the particular birds of the Norfolk fens that I am acquainted with, are contained in the letters of Sir Thomas Browne, which will well repay any one for an attentive perusal. They are to be found in Wilkin's recent edition of this philosopher's works.

The plenty of fish and wild-fowl had in former times great charms for monastic bodies; dependent chiefly upon these for sustenance upon maigre days, they generally set up their staff where they were easy of access. The ruins of St. Bennet's abbey, near Ludham, formerly a very large establishment, still remain. At Hickling and other places were similar endowments, such as Broomholme priory, Weybridge priory, near Acle, &c. Blomefield enumerates sixty-five lordships in thirteen different hundreds as belonging to St. Bennet's abbey.

The shallowness of the pools of Norfolk is remarkable. Hickling broad, which contains more than 400 acres of water, is, unless in a few particular spots, not above four feet and a half in depth; indeed, in the middle of summer, when a regatta takes place there, it requires care to prevent a large pleasure boat from running aground in some parts of the open water. This shallowness of water is in favour of fish and fowl. On the continent, where they reduce fish-ponds to a complete system, they do not think more than five feet of water desirable; and to all water-fowl shallows are preferable,—water-weeds grow more abundantly, and are more immediately within their reach.

The flat surface of the county, and the consequent sluggish course of the rivers, are the causes which give rise to the Norfolk broads. Perhaps that vast extent of marsh called the East Fen in Lincolnshire, and parts of

the West riding of Yorkshire, alone present similar appearances. These pools, varying in extent from hundreds of acres to the size of a large fish-pond, are universally the haunt of fish, generally of wild-fowl. These last, however, have very much decreased since the improvement in guns. The number also of those who find shooting always more pleasant, sometimes more lucrative, than regular work, has been much greater of late years; the drainage of the fens has been more complete; and these and similar causes have rendered many kinds of bird, formerly common, now so scarce that it behoves the cautious naturalist, in very many cases, rather to speak "of what has been," than with reference to the present time, when he enumerates the birds of Norfolk. To the above reasons for the decrease of fen birds may be added two others,—the system of "egging," and the general knowledge of the price which uncommon birds fetch in the London market, which causes an eager search for every thing likely to sell there.

The broads lie *chiefly* in the north-eastern part of Norfolk and a portion of Suffolk; and an ideal triangle traced upon the map, having for its angles Norwich, Lowestoft, and Happisburgh, will comprise the principal part of them. As before said, they are of all dimensions, from the puny pool, overgrown with weeds, called here provincially a "pulk," to the wide-expanded lake. Amongst the principal are, Hickling broad, Horsey mere, and Heigham sounds, Lake Lothing and Oulton water, Barton broad, Rollesby and Filby broads, Fritton broad, South Walsham, Ranworth, and Hoveton broads; and, though last, perhaps pre-eminent over all, Breedon water, close upon the town of Yarmouth, which has furnished at different times as many objects of interest to the naturalist, as any locality in Britain. Indeed, any one of the

larger broads a few years ago, towards the latter end of summer, afforded manifold objects for speculation to any one at all delighting in nature. If the angler failed in obtaining much sport, at any rate, in the words of that ancient dame, Juliana Barnes, "he heard the melodious armony of fowles; he saw the yonge swannes, heerons, duckes, cotes and many other fowles, wyth theyr brodes." Something new was perpetually presenting itself.

The word "broad" is itself entirely provincial, and seems to be hardly applied save in Suffolk and Norfolk. Southey, in a note to his *History of Brazil*, says, "This is a provincial term, used in Norfolk and Suffolk, to designate those parts of a river where the stream expands to a great width on either side. Broads therefore I have used in this sense, as distinguished from lakes, which are great receptacles of water formed by one or more streams, but having the outlet generally much larger than the inlet; and from lagoons, by which I am to understand lakes, lying near a river and formed by it." All these forms may be found amongst the broads; but the most general one is that to which the poet and historian gives the appellation of lagoon.

With flat and marshy borders, covered with reeds and rank vegetation, the waters of Norfolk have little to interest the seeker after picturesque beauty. Some of them however have claims even of this kind, and, to the botanist, the ornithologist, the angler, or the sportsman, they almost universally offer a harvest of amusement or information. The very dwellers amongst these pools and swamps are, or rather were, *sui generis*.

A few years back, nothing was pleasanter than a summer expedition, for a few days, to some of the larger broads; the preparing the pleasure-boat, the providing shooting and fishing apparatus, the voyage and the arrival,

had all their separate charms; then when arrived, the foraging for the public good: proud was the lucky wight who returned with perch or eels,—prouder still he who could boast of flappers or a curlew. Then the amusement of cooking,—each thinking himself the Ude of the party,—and above all the appetite, completely superseding the French sauce, the inventor of which declared, “avec cela, on pouvoit manger son grand père.”

In the diminution of marsh birds, Norfolk only shares in an effect which seems universally in operation. If we look to other countries, we everywhere find the spirit of civilization and improvement warring with the *feræ naturæ*. Nay, the conflict is carried into the remotest corners, where we should believe all solitude, repose, and security. From the narrative of Audubon, it is found that not even the extreme north, the ice-bound coasts of Labrador, are exempted from the ravages of destroying man. He met with a party who in six weeks had collected 32,000 dozen eggs of various water-fowl; and adds that they were destroying the old birds by thousands, for the sake of a few feathers from the breast of each. If this spoliation continue, surely the north must cease to pour forth its myriads every autumn, to repair the deficiencies caused by the artificial wants of civilized society.\*

\* It is a singular fact, that various European quadrupeds have been suffered to become nearly extinct, without their habits, &c. being so much understood, as those of species belonging to other quarters of the globe. The European Bison is now confined to a single forest in Russian Poland; everywhere besides the race is extinct, and yet little has been done to determine whether it is really distinct from the American Bison, or only partaking of the variation in appearance caused by climate. Some collections, rich in Indian and African antelopes and deer, are yet without the Ibex of Switzerland, which is now nearly extirpated by the rifle of the chamois hunter. The Musmon of Corsica and Sardinia, so long supposed the original of our domestic sheep, will perhaps cease to exist before the question is fairly set at rest.

What in this instance we contemplate on the grand scale, is in miniature action amongst ourselves. Our marshes are more and more improved and drained, for the sake of pasturage; and under the plea of gathering lapwings' eggs, almost all the birds which remain in summer have their nests regularly plundered. The fen is no longer enlivened by the note of the redshank, nor echoes to the scream of the quickly-glancing tern; the boom of the bittern no longer is heard at nightfall; the ruff, formerly so common amongst us, singular in habits and beautiful in plumage, always eagerly sought by the epicure and bird-preserve, has in most places nearly vanished.

Two authorities have afforded me considerable information as to the former abundance of birds, their price, and value for the table. These are the L'Estrange *Household-book*, which forms a portion of a recent volume of the *Archæologia*, having been communicated to the Society of Antiquaries by D. Gurney, Esq. of Runcton. This record of the manners and expenses usual in a family of distinction in the reign of Henry the Eighth, and in this very county, affords curious information of all kinds, and a great deal bearing upon birds directly. It is also to be remarked, that this was precisely the time when the gun and the crossbow appear struggling for pre-eminence; the dexterity then prevalent in the use of the latter is plain, from eight mallards being brought in one morning killed with the bow. And the way in which the instrument of destruction is always noted, as well as the thing killed, is amusing.

Sir T. Browne's papers, written about 1560, on the Birds of Norfolk, are worthy of notice as the production of an excellent naturalist.

In Sir T. Browne's time, the CRANE (*Grus cinerea*) was not uncommon here, especially in hard winters. In the

L'Estrange *Household-book*, (see the 26th volume of the *Archæologia*,) there are three notices of Cranes killed at Hunstanton,—one by hawking, one with the gun, and one with the crossbow. This bird was much esteemed for the table: it has been entirely unknown here for a long time. It seems also, I apprehend, to be growing very scarce on the continent.

The same authority, Browne, mentions the SPOONBILL (*Platalea Leucorodia*) as breeding at Claxton near Buckenham ferry, and in one or two other localities. It has been repeatedly shot of late years near Yarmouth, and once or twice fresh specimens have found their way into Norwich market. This doubtless is the bird, which, in bills of fare and old treatises on field sports, &c., is called Shovelard, which some have supposed to be a very different bird,—the Shoveller Duck.

THE GLOSSY IBIS (*Ibis falcinellus*) has been killed in the county several times; fifty years back it was seen often enough to be known to gunners and fishermen as the Black Curlew. This at first sight perhaps appears improbable, but whenever the numbers of a bird begin to wane, they soon become nearly extinct.

THE STORK (*Ardea ciconia*) has occurred several times. From its sacred character abroad, is of course most unsuspicious when it comes hither, and is easily obtained. In 1838 a very fine specimen was shot at Wretham in this county. The Museum has one killed on Breedon.

THE SQUACCO HERON (*Ardea Ralloides*) and the PURPLE HERON (*Ardea purpurea*) have been found with us. A young bird of the latter species, killed in Norfolk, is in the Norwich Museum.

THE COMMON HERON (*Ardea cinerea*) is still common in Norfolk. Although many heronries have been broken up in the last half century, some still remain; and detached

pairs of these birds breed about our marshes and broads, sometimes upon an alder in a carr—sometimes amongst the reeds in the most inaccessible part of the fen. When, a few years back, a community of these birds existed at Keswick near this city, the flounder, called provincially “Butt,” was often found under the trees in the breeding season. This shows the distance to which the Heron goes for booty: these butts must have been brought from Borough flats at the back of Yarmouth.\* It has been usual in books of Natural History to call this a miserable bird. This may well be doubted: the very watching for prey gives pleasure. I have observed a tame Heron, when satiated with food, still standing by the tub in which roach and dace were swimming about, striking them at intervals, and then letting them go again. In a decoy it is a great nuisance: it disturbs the wild-fowl, in the first place, when they sit upon the smooth banks at the entrance of the pipes, by stalking continually about with long strides, molesting them whilst dozing; and in the next, is equally hostile to the decoy-man’s attempt to take them. The senses of hearing and smell are so acute in the Heron, that he detects the presence of man when wild ducks cannot do it. Into the air he rises, with flagging pinion and a boding shriek, and all the wild-fowl dash away in an instant, being quite sure that some danger is at hand, although they cannot tell what it is.

Sir T. Browne speaks of heronries as most common in his time in Norfolk, and that the young were esteemed

\* I am glad to be able to state that these herons being deprived of their stronghold at Keswick, did not leave the county; but betook themselves to a plantation of Scotch firs about two miles distant, where this spring, 1844, there is an abundance of nests. They (the herons) still remain in the same family as before.

a festival dish. The bird seems to have stood at the head of delicacies. Six herons are specially mentioned in the L'Estrange manuscript as brought into the larder in one fortnight. The Heron is now in no esteem for the table, but appears formerly, on the continent as well as amongst us, to have been of great price. Take, for instance, the bill of daily fare provided by Henry IV. for the Cardinal Aldobrandini, who accompanied Mary de Medicis to France:—forty-five dozen loaves, six vessels (barili) of wine for his suite, twenty-six bottles of ditto for the cardinal's table, five sheep, 150 pounds of beef, two calves, sometimes one or two kids, from ten to twenty turkeys, six or eight great and from thirty to thirty-six ordinary capons, eight or ten ducks, two herons *but not every day*, &c. &c. See Raumer's *History of the 16th and 17th Centuries*, from which it seems that the kids and herons, the rejected of modern days, were then first in the list of dainties.

THE NIGHT HERON (*Ardea nycticorax*) has been procured several times in Norfolk. Mr. Gurney is now in possession of the specimen killed near Yarmouth, which was supposed to be the Cayenne Night Heron. He has no doubt that it belongs to the common species.

THE BITTERN (*Botaurus Stellaris*) has decreased much in number in the last twenty years. I remember when these birds could be found with certainty in the extensive tracts of reed about Hickling broad and Heigham sounds. Four or five might be seen in a morning. The nest and young of this species appear to have been always difficult to find. After diligent inquiry, I could ascertain only two instances in which the nest had been seen with the young. In both these, and this is a curious fact, the finders asserted to me, that, of four young in the nest, two were apparently much older than the others: so great

was the difference, that they spoke of one pair as more than half grown and nearly fledged, and the other pair covered with nestling down, and but a few days hatched. There is a similar notice with regard to the habits of the white owl, and its nest containing young of different ages, in Mr. Yarrell's *British Birds*. Besides the Bitterns which still breed here, a few migrate hither in autumn. From its skulking habits, and its being nocturnal, this bird appears rather rarer than it is. It seems to dislike broad sunshine as much as the owls. One, compelled to take flight in the full blaze of a July noon, flew hither and thither, as if quite dazzled and confused by so much light. Mr. Yarrell, speaking with caution, says that he can verify only three instances of the Bittern recently breeding in England; but I believe that a few pairs still regularly breed around our larger broads. The difficulty of finding the nest, was, as I have said, very great, when the bird was far more common than at present. The want of actual knowledge of the nest itself does not in the least invalidate the fact of the bird breeding with us. A water dog once brought me a very young Bittern; but, from the precarious nature of the reed bed, and the difficulty of moving even a few yards further, I could not discover the nest whence he took it. I have many years back seen several killed, in the same morning in August, by sportsmen searching for young wild ducks, and it was easy to distinguish young birds from those more aged. The Bittern probably breeds early in the season: I find amongst my friend Girdlestone's notes, notice of a Bittern shot at Ranworth on the 18th of May in the act of feeding her young ones. The Bittern has been shot with a water-rail, a bird of some size, whole in its stomach; and Sir T. Browne speaks of one which he kept tame in his garden, which managed to subsist greatly upon small birds, which

it caught when they were tempted down by corn scattered to allure them.

THE LITTLE BITTERN (*Ardea minuta*) has been frequently killed in Norfolk, and sometimes under such circumstances as to render its nesting with us, occasionally at least, probable. Mr. Yarrell leans to this opinion, and it is a point to which Norfolk naturalists should look with sedulous attention. If the nest of the preceding species is hardly ever discovered, what must be the difficulty of verifying that of this minute species, with which concealment is easy in a tenfold degree?

At the beginning of this century, the AVOSET (*Recurvirostra Avosetta*)—Provincial, "Shoeing Horn"—used to breed constantly and in considerable numbers at Horsey, but has not done so of late years. On the authority of an old and respectable fen-man, it bred regularly forty years ago near the Seven-mile House on the North river; occurs still sometimes upon Breedon. The last I know of positively in the fens, was a small flock which visited Sutton broad in 1828. In the *Magazine of Nat. Hist.* for June 1836, is a communication signed "E. Ventris, Trin. Coll.," in which it is said that the Egret (*Ardea Garzetta*) bred within ten or twelve years at Horsey. Probably there is here a confusion between Avoset and Egret. I believe no instance in the memory of man has occurred of the latter's breeding in the county. Indeed, it is doubtful whether it was ever otherwise than scarce. It is very doubtful whether the Egrettes mentioned in Abp. Neville's feast were really the *Ardea Garzetta*.

Avosets used formerly to breed at Salthouse near Holt, but are extinct there; they were much harrassed, as their feathers are valuable to make artificial flies with.

THE STILT PLOVER (*Charadrius Himantopus*.) This singular bird has repeatedly been found amongst us; on

one or two occasions in pairs during spring. A female, shot some years back near Yarmouth, was forward in egg. I was once fortunate enough to see this bird in flight near Hickling broad, and to procure the specimen. Its flight was rapid and vigorous; the legs projected behind, even more in proportion than those of the heron.

THE CURLEW (*Scolopax arquata*) visits Norfolk in considerable numbers, but is more plentiful on the western side of the county than in the district of the broads. Is never known to breed here, though a straggler may be seen here and there during that season; differs very greatly in size, length of beak, &c. Small parties of curlews of the very largest size arrive in our marshes about harvest-time, and are known to gunners as the Great Harvest Curlews,—probably old females collected together after the breeding season. The difference in the size of the birds, composing two flocks feeding on the same island and not far asunder, might be seen at the distance of 150 yards: in one party were seven very large curlews; in the other about twenty, so much smaller, that a hasty conclusion might be drawn, that they were in reality whimbrels; but, to remove doubt, on two being shot they proved genuine curlews. I have several times observed this difference in the size of different parties of curlews. The larger birds were the most clamorous, and appeared when flying singly to answer the whistle the most readily; for this bird, wild as it is, will fly round and round within gunshot of any one who skilfully imitates its cry, nay, on a wet day formerly would suffer a flint gun to be snapped in vain, and yet return again to the charge. In companies, they are deaf to the call.

And here should be noted the accurate imitation of the note of various birds which some fen-men can produce. The one who used to guide me about generally, could

arrest a single curlew in flight in an astonishing manner; the bird would fly round and round him within thirty yards. The Golden Plover has alighted upon the ground within the same distance of him. He seemed to possess the witch's charm in *Thalaba*:—

“—— The old woman laid  
Her shrivell'd finger on her shrivell'd lips  
And whistled with a long long breath.  
She stands in the depth of the wood,  
And panting to her feet,  
Fawning and fearful, creeps the charmed ounce.  
Well mayst thou fear, and vainly dost thou fawn—  
It is Khawla who stands in the wood.”

But this mastery could be exercised chiefly on solitary individuals, or at most two or three together; a flock was not so to be betrayed, and the note of some birds was beyond any one's powers,—that of the whimbrel, for instance, defied imitation. The Curlew is excellent when shot from the marshes, but is thought rank from the seashore. Formerly it bore a very high price. In the L'Estrange *Household-book*, three are bought at Snettisham market for two shillings, which was at that time the price of a fat sheep.

THE WHIMBREL (*Scolopax Phæopus*, Linn.)—Provincial, “Half Curlew.” In the latter part of April and beginning of May these birds visit the marshes in considerable flocks. They are sometimes very numerous at Horsey; are far more easy of access than the curlews, and when disturbed make shorter flights, removing only from one marsh to another, instead of rising high in air and forsaking the district altogether, as the curlew generally does. They have a clattering confused cry in flight, which baffles any imitation by the human voice, and is described in Shephard and Whitear's *Catalogue of Norfolk Birds*, vol. 15 of the “Linnean Transactions,” as “Widdy,

tetty, titty, tetty, tet." An egg, presumed to be that of the Whimbrel, taken on a heath near Norwich, was shown to me some years back, but probably belonged to the Stone Curlew, (*Edicnemus crepitans*.) Nothing has ever transpired to encourage the opinion of the curlew or the whimbrel remaining to breed in the county. Birds of similar habits in general, differ widely in their choice of a nesting place. The godwit, the curlew, and the whimbrel, frequent with us the same marshes, and are seen together feeding on the ouzes of Breedon; yet in breeding their choice of a locale is very opposite,—the godwit chooses the swamp, the curlew and its congener the exposed and upland moor. And this is no consequence of drainage and improvement. Pennant, in his tour made in 1769, speaks of the Whimbrel as leaving the Lincolnshire fens in the breeding season, whilst the godwit constantly remained for the purposes of incubation. The purr, again, whose existence is spent at other times on our shores and tide rivers, although it sometimes breeds in these situations, prefers elevated spots in the interior. In its summer plumage it is often to be found on the heights of the Scottish mountains, and probably thus first gained its name of "Alpina."

THE OYSTER-CATCHER (*Hæmatopus ostralegus*) is often seen on the beach, but seldom any distance from the sea. It is doubtful whether it ever breeds in the eastern part of Norfolk; is far more common on the western shore between Lynn and Wells, and again near Salthouse.

GOLDEN PLOVER (*Charadrius pluvialis*, Linn.)—Provincial, "Whistling Plover." This beautiful bird visits us in autumn in large flocks, but is in some seasons far more abundant than in others. A great many are shot in the marshes. The early dawn is the time at which the fen-men seek them; they then fly about in close

bodies, and will pass very near to any one remaining perfectly still. In the middle of the day they are very difficult of access. They seem to divide their time between the marshes and the uplands. If they are in a marsh all day they often move off to a ploughed field just as it is dusk, and *vice versa*; if upon arable land, they go down to the marsh for the night. Is truly called "pluvialis" from its restlessness before bad weather. A few years back, one day in the end of December, I stood upon an eminence overlooking a level of marshes; the day was beautifully mild and bright. I was struck by the perpetual wheelings, now high now low, of large flocks of this bird and the peewit. They were not still for a moment, and yet I could discover no cause of disturbance. Some hours afterwards I went again to the same hill, and found them in the same perturbed state. I was so persuaded that this restlessness was the harbinger of stormy weather, that I wrote a letter excusing myself on that plea from fulfilling an engagement at a distance. The next morning came, calm and mild as the preceding; the plovers, however, had all departed, not one was to be seen. About five P.M. the wind began to howl, signs of tempest came on, and before morning so much snow fell, that in the lanes were drifts six and seven feet in depth. This bird never breeds in Norfolk, as far as I can ascertain, but sometimes remains here very late in the spring. A pair seen upon Thorpe common on the 26th of April, 1823, were in the nuptial plumage, and had lost much of their usual shyness, the male pursuing the female upon the ground in playful circles, and suffering a near approach. The female when shot was forward in egg. The usual time at which these birds arrive in Norfolk is the end of October or beginning of November; but in 1827 two were shot from a small party of seven on the edge of

Horsey broad, on the 23rd of August,—a most uncommonly early appearance. No marsh bird is so fond of society as this, and hence probably the facility with which, when solitary, or only two or three in company, it answers the imitation of its cry and is lured to destruction. A plover alone always appears wretched; it flits across the marsh shrieking out its vexation, and will rather associate with other birds than remain deprived of company. It is a common occurrence to see a flock of lapwings, and one Golden Plover which has intruded itself into the party.

THE LAPWING (*Vanellus cristatus*, Fleming)—Provincial, “Pywipe.” Still common in the fens in the breeding season, but greatly reduced in numbers. Its nest is too often plundered entirely, without leaving a single egg to encourage it to lay again; for the proper mode is always to leave an egg whatever number may be in the nest. By this procedure, a great egger affirmed that ten or twelve eggs might be taken from one pair of birds, and yet they should at last hatch and rear a brood. Mr. Yarrell mentions two hundred dozen of these eggs as taken in 1839 from Romney marsh. In 1821 a single egger, resident at Potter Heigham, took an hundred and sixty dozen in the adjacent marshes. In those days nearly a bushel of eggs have been gathered by two men in a morning, principally from this bird; but the redshank, the reeve, and various terns were also put under contribution, their eggs although smaller being equal in point of flavour; and being less inclined to lay again, and more impatient of the theft than the Lapwing, this system of robbery did them much more harm. In those days, indeed, various were the eggs which joined to fill a basket. Mr. Yarrell, in his excellent work on British Birds, mentions dogs as trained to hunt for the eggs. I never knew this reduced to a system in Norfolk; but I recollect a

bitch of the water breed, which taught herself this accomplishment from being with her master when he searched for nests. Indeed a dog quite unused to the pursuit, after seeing two or three nests found, and testifying his participation in the joy by barking and wagging his tail, betook himself to egging, and not only found but brought several in the same day, without breaking a single egg. The egg is here worth more than the bird. Many of the very earliest are sold by those who take them at eightpence each, and they seldom get lower than three shillings a dozen. In days of yore the bird bore a high price. In a list of market prices for 1633, one peewit is tenpence, and a dozen tame pigeons are only sixpence. This list is from Wade's *Chronological History of Great Britain*. In the L'Estrange *Household-book* mention is made of a dozen plovers sent by the knight as a present to the French queen. It does not appear whether these were the Lapwing or the Golden Plover. It attacks hawks and crows in the breeding season with great boldness, and from its quick turning and power of wing appears to have confidence in its ability to escape its foes. An imperfectly trained falcon, on being unhooded for a flight at a heron, selected in preference a Lapwing which was hovering in the vicinity, and the self-possession shown by the latter was remarkable. Three pounces did this formidable antagonist make in vain, the Lapwing hanging in the same place in air, always facing the foe, and avoiding the onset by a summersault. A ring dove in passing attracted the falcon, which raked off in pursuit, leaving the peewit apparently as full of triumph as affright. The Lapwing will under favourable circumstances breed in confinement. Kept as they very often are in gardens, they generally in spring manifest some inclination towards nesting, by scratching holes and placing grass and leaves therein. In

the instance alluded to the nest was made and young hatched in a strawberry bed, and nothing could exceed the gallantry and attention of the cock bird to his partner. Probably migrates only from one part of England to another; leaves Norfolk in very severe frost, but returns so speedily when the weather is fine again, that it cannot have been very far removed in the interim.

GREY PLOVER (*Tringa Squatarola*, Pennant.) Not so general as the Golden Plover, but often appears in numbers; sometimes in large flocks in the neighbourhood of Breedon water. Is often exposed for sale in the Norwich fishmarket in company with the Golden Plover.

Five species in particular formerly used to swarm in our marshes,—the Godwit, the Ruff, the Lapwing, the Redshank, and the Black Tern. These last bred in countless multitudes in a large alder carr at Upton near Acle, and dispersed themselves over the country for miles, in search of insects.

Whilst the redshank in the breeding season flew dashing around the head of any intruder on his territories, and endeavoured like the lapwing to mislead the stranger from the nest, higher in the air and flying in bolder circles, uttering a louder note, was the BLACK-TAILED GODWIT (*Scolopax Lapponica*), called provincially the "Shrieker," from its piercing cries. This bird is now almost extinct in this part of Norfolk; it used to breed at Buckenham, Thyne, Horsey, and one or two other places.

I have formerly also known the GREENSHANK (*Scolopax glottis*) as a summer visitant in the vicinity of Hickling broad. These birds used to frequent the marshes by day, and come down to wash themselves at the gravelly margin of the broad in the evening, when their cry was very singular and melodious. This was in August. I am not aware of the Greenshank having ever bred here.

THE REDSHANK (*Totanus calidris*, Flem.)—Provincial, "Redleg." Still common enough, although far diminished from the abundance in which it was formerly found. Breeds constantly in the fens. Flies round its nest like the lapwing with great clamour; remarkably active and lively in its habits; is strictly monogamous, the male and female evincing equal zeal in endeavouring to mislead any intruder upon the spot which holds their young, and being on these occasions even more clamorous than the lapwing. These birds appear in pairs in the marshes as early as the first week in March. The egg is smaller than the reeve's, and recedes more in appearance from the lapwing's, being browner and less olive. The male may often be seen pirouetting and strutting upon the top of a gatepost, then glancing across to the opposite post, turning round and round two or three times, and dashing back to his first situation. In a state of perfect nature, this occasional perching among water birds is not uncommon. Mr. Hewitson observed it in Norway in the greenshank, and even in the curlew. A friend informs me that on inspecting the line of a projected marsh dyke, he observed a snipe on the summit of a stake about four feet in height, which was used as a boundary mark, and that the bird suffered a very near approach. Although less shy than the ruff, it does not so easily endure domestication. The Redshank pinioned and confined in a garden never thrives long. Collects in considerable flocks in the beginning of autumn, frequenting the shores and salt marshes; is then a troublesome bird to gunners,—like the curlew, often giving the alarm. Is probably an irregular migrant according to the mildness of the season. Seems to have been formerly in better reputation for the table than at present; is often mentioned in the L'Estrange *Household-book*, as purchased or received as a present, with stints,

sea dottrel, curlews, &c., and also a bird called a Spowe, which baffles conjecture. A friend suggests that *spowe* might be an abbreviation for *sparrowe*; but the price and the company in which it always appears, i.e. water birds, render this unlikely. Spowe, on good authority, is said to be Icelandic for curlew, but the curlew is repeatedly mentioned by name. The Redshank is one of the birds mentioned in the Northumberland *Household-book* as being admitted to his lordship's own table. One of the notices of the spowe in the L'Estrange *Household-book*, runs thus: "Pd to ye fowler at Corbett's for iij duss. and di. of stynts, v spowes, iij white plovers, and ij redshankes, and ij sedoterells."

That quaint and amusing pedant, Robert Laneham, in his letter to a friend describing Queen Elizabeth's visit to Kenilworth, says, speaking of the bridge contiguous to the castle, "Upon the first pair of posts were set two comely square wire cages, three feet long and two feet wide, and high in them, live bitterns, curlews, shovelers, hernshawes, godwits, and such like dainty birds of the presents of Sylvanus the god of fowl." Here the inhabitants of the marsh are found in the place of honour, and land birds quite neglected. The same preference to fen birds, the waders especially, pervades the whole of the L'Estrange housekeeping. Knotts and plovers, with the curlew, appear most prized; a redshank is about one fourth the value of a plover; teal occur only twice, and the ruff is not mentioned. Pheasants and partridges appear several times, but only two or three together at the most. The Seapye (Oyster-catcher) is in the list, and another mysterious fowl called a Popeler, which is inserted in company with herons. Three dozen and a half of knotts are priced at four shillings, and a dozen stints at twopence. Snipes, mentioned only in one or

two instances, appearing not in so much request as at present. Woodcocks also, although eaten, seem to have been secondary objects. Two woodcocks and four black-birds are on the list together as bought at the same time. The bow appears to have struggled against the first clumsy attempts at fire-arms with some success. The wild goose, swan, crane, and bustard, are noted as thus killed. Probably the price of gunpowder was very high, and the article itself very bad: this appears from one or two entries. The stalking horse is especially mentioned, his being shod, &c., which makes him seem a necessary appendage in those days to a fowler.

THE RUFF (*Machetes pugnax*, Selby,) has decreased in number much of late years, the beauty of the bird having caused it to be more than ever sought after. A Ruff "with his show on," which is the provincial phrase by which the fen-men here designate one of these birds in the breeding plumage, is exactly the creature which all bird-preservers eagerly snap up. It is not bought merely by those who possess knowledge of natural history, but pleases the eye of those who only want a pretty object in a glass case. The whole of this extra plumage is put forth in about five weeks. A Ruff shot in the beginning of April, the period of their arrival if the spring is fine, has a few carbuncles about the base of the bill, and the feathers of the neck appear in a ragged and unsettled state; here and there a longer one half perfected protruding. In a month this bird's "show" would be complete. The young ruffs of one year do not produce so perfect a show as older birds.

Nets were never used to take these birds in Norfolk. In a conversation with an old man who had set horse-hair snares for them during many seasons, he stated, that he once, and once only, took six couple in a morning. This

is nothing compared to what has been done with the net in Lincolnshire,—forty-four birds at a haul, and altogether six dozen in the course of the morning. See Montagu's *Dictionary* for a most interesting and complete account of the capture and feeding of the Ruff in that county.

Many years back I counted eighteen Ruffs upon one "hill" in the Potter Heigham marshes; and this is the greatest number I ever saw together. The "hill," as it is called, is generally made on a slight elevation on the bank of a marsh dyke, and here the birds run continually to and fro, fighting and fluttering with their wings until they quite flatten down the grass.

From the observations I have been able to make, I am not inclined to think their combats in a state of nature very terrible. The desire of sexual intercourse which brings them together, of course causes an irritable and excited state in these birds; but I have often watched them, and very little real fighting could I discover. They seemed more to threaten great things (as may be seen amongst dunghill chickens, when they ruffle their feathers at each other without striking,) than to perform much. When crowded at all on a hill, there certainly was contention; but if there was plenty of room for each to walk about, they seemed to agree tolerably. The arrival of a fresh Ruff upon a hill where some were already assembled always caused universal confusion for a minute or two. That when in confinement, fed very highly, and kept entirely from their mates, they will fight desperately, I have no doubt; so will the quail and other birds; but I never heard of a Ruff being taken in a marsh through injuries received in battle.

The same hill is not invariably resorted to. The birds sometimes "hill" in one marsh, and the next season resort to a different situation entirely. This congregation of

males is also called a "play" of Ruffs. Having found the hill, the Norfolk fowler prepares about a dozen pegs, sharpened at one end and split at the other: into the split he introduces the middle of a loosely-twisted link of long horse-hair, so as to form two nooses, one with each half of the link. The peg is then driven into the ground so as to be perfectly level with the surface, and one noose is placed horizontally, just raised by the herbage perhaps half an inch from the soil, whilst the other is disposed perpendicularly, the lower part resting on the ground. These snares are disposed on the outskirts of the hill, rather than the middle, as the Ruffs in their flutterings generally spring from the centre towards the circumference of this chosen spot. When a Ruff is snared, he, after an effort or two at escape, gives up the attempt and crouches quite close to the ground; the other birds also generally forsake the hill until he is removed, (but this does not invariably take place.) A vigilant look out must be kept upon the place where the snares are set, if the fowler wishes to reap the fruit of his labour. The stoat and the brown rat, both of which are abundant in the marshes, are very quick in discovering the captured birds and devouring them: should they feed upon one, it is useless to attempt snaring any more upon that hill, until a trap has given the intruder a *coup de grâce*.

The colours of the Ruffs are so various that it is hard to say which is most common: perhaps the most general livery is reddish chesnut, or black and white bars; the rarest tint is certainly pure white. A hill of Ruffs looked at from a distance on a sunny day, with the light glancing on their party-coloured plumage, was a very pleasing spectacle, though now of rare occurrence in Norfolk. To view them thus, it was necessary to be paddled by a skilful hand in a small punt up some main dyke in the fen, so

as to approach completely screened from view by the high banks; for no bird is more vigilant, or more impatient of near approach, than this. It is therefore very difficult to shoot, although it may sometimes be allured within fair reach of the gun, by means of a stale or stuffed Reeve. This, however, is only for a very short period, when the Ruffs, having broken up their hill, disperse themselves about the marsh in search of the reeves. At this time the distance is extraordinary from which a Ruff will come to a Reeve, whilst flying in circles round her nest. I have known a Reeve thus put in motion bring three or four Ruffs from the other side of Heigham sounds, a very large sheet of water. This time of activity, however, is soon over: the nuptial plumage then falls off; the bird gives up the character of Lothario, and seems chiefly to study how he may most conveniently get fat before his autumnal migration. Indeed, the collar of long feathers worn by the Ruff in spring, though beautiful, appears to cause the bird much inconvenience. The flight of a Ruff in full plumage is like that of the fresh-arrived and tired woodcock, roused early in the morning after a flight which completed his last stage from Scandinavia; it is laboured, slow, and straight. No sooner does the bird get rid of these appendages, than he dashes forwards with all the buoyancy and swiftness of the rest of the genus. There cannot be a greater contrast than the swift-glancing, powerful flight of the Reeve, and the laboured, fettered motions of her partner during the breeding season.

Montagu speaks of the extraordinary distance at which a practised fowler can espy a Ruff amongst the herbage of the marsh; but even a novice is surprised at the distance at which these birds, upright and motionless, are visible to the eye. They leave us in September; but Sir Arthur de Capell Brooke speaks of them as observed

in the vicinity of the North Cape, and not migrating thence until October.

Since I penned these remarks I am glad to find, that more care taken in preventing the robbery of nests has re-established the numbers of this bird in one or two situations. Formerly, after the breeding season they collected in large bodies. I once saw seventy or eighty together, in a marsh near Burgh castle, at the top of Breedon. But these flocks did not seem to frequent the muddy ouzes of that water, as curlews, godwits, &c. do; the whole of their time was spent in the marshes, and when thus congregated they prefer a very wet swampy part of the fen; in the breeding season they frequent the drier spots. I have observed a few of these birds, in their autumnal migration, on the Swiss lakes in September. The price of a Ruff fresh caught in the fen, was, twenty years ago, tenpence or a shilling: they are now worth six shillings a couple. It is not once mentioned in the L'Estrange *Household-book*, which is singular; all marsh birds appearing then to be in great request. The egg, although smaller a good deal, resembles the lapwing's, so as doubtless often to pass muster in a basket. One peculiarity in the young of this bird, the redshank, the lapwing, &c., should be noticed; and that is, the instinct implanted in them for the wisest purposes, which causes them, whilst small and incapable of flight, to run to water as a protection. If the young of any of these marsh birds are molested or pursued, they swim across the first ditch at hand, with no symptoms of disturbance or alarm, seeming to know that they thus throw a barrier between themselves and their adversary. A young redshank has remained *perdu* under the bank of a drain, floating in water for several minutes, until the cause of alarm seemed removed; it then voluntarily swam

back again to the marsh it had just quitted, and walked off upon terra firma, shaking itself without any apparent discomposure or suffering.

LITTLE RINGED PLOVER (*Charadrius minor*.) Two specimens of this bird in the Norwich Museum, were believed by Mr. Denny, the curator, to have been killed in the county; but the fact was not noted down at the time, which is very desirable with all birds, either rare or of partial occurrence.

THE TURNSTONE (*Streptilas interpres*, Linn.)—Rare among the broads; has been observed on an island in Hickling broad; is shot sometimes upon the beach, according to Mr. Girdlestone's observations, at Yarmouth; is sometimes tolerably common in May, but disappears in the beginning of June, shifting its quarters to breed.

As might be expected, besides these regular inmates, Norfolk has at different times afforded specimens of the very rarest Sandpipers and other wading birds, some of which our Museum possesses; amongst which may be reckoned, the Spotted Redshank (*Totanus fuscus*), which is not common in any stage, but very rare in the full summer plumage. Mr. Gurney has two specimens of that very rare bird, the Red-breasted Snipe. The Spotted Sandpiper (*Tringa macularia*), killed at Sherringham, is in the possession of the same naturalist. To these may be added, the Buff-breasted Sandpiper (*T. rufescens*), which has occurred more than once. The Broad-billed Sandpiper (*T. platyrhynchos*), killed upon Breedon; this bird, from Mr. Dann's account, seems to resemble the Jack Snipe in some habits, whilst breeding in Lapland. The same locality has produced an American species, the Pectoral Sandpiper (*T. pectoralis*.) The Little Stint (*T. pusilla*) has been found often; and Temminck's Stint (*T. Temminckii*) more than once. The Purple Sandpiper

(*T. maritima*) is omitted by Mr. Paget, but some of these birds are found almost every year on our coasts. The most common species are the Common Sandpiper (*T. hypoleucus*) on the larger rivers, and the Green Sandpiper (*T. ochropus*) upon the little upland streams. The Wood Sandpiper (*T. glareola*) is very irregular in appearance and uncertain in number. Many years ago, when a large tract of marsh dykes were cleaned out at Caistor near Yarmouth, the Wood as well as the Green species were for a time quite abundant.

THE GREEN SANDPIPER (*Totanus ochropus*, Flem.)—Provincial, "Martin Snipe," "Summer Snipe." Certainly remains with us more constantly, when it finds a situation which pleases, than has been stated by most writers on British ornithology. A small stream passing through the next parish to the one in which these observations were written, will furnish one or two of these birds, if well searched, at almost every time of the year. They are most abundant perhaps in the beginning of autumn. The bird has been always represented as never to be found in England in winter. In 1832, one was seen near Norwich on the 23rd of December. In 1836, I observed an individual on the 9th of December. On the 4th of January, 1837, I shot one on a small stream in Rockland,—the frost at the time intense,—the wild-fowl all driven from the broads by stress of weather: this bird was in high plumage and condition. On the 29th of December, 1838, I saw two of these birds at Hargham. It is very noisy in flight, and its note most powerful, often to be heard in summer when the bird is passing at an immense height; it is very vigilant and difficult to shoot; almost always fat, and has a most fulsome muddy smell. Indeed, the black soil of ditches appears an irresistible temptation to it. The greatest number of these

birds I ever saw, were collected in 1816 at Norton in Suffolk, a range of meadow drains having been cleansed, and the mud thrown out on the sides. They were abundant in parties of five and six. Sir Thomas Beavor informs me that, some years back, a pair of these birds made a nest and laid eggs in a cavity caused by the fall of a stone from the side of a clay pit on his estate, but that the nest was plundered by a shepherd's boy. Is esteemed in France for the table; indeed, a great epicure, formerly resident in this neighbourhood, used to desire his servant to procure him all that he could shoot. Is fonder of the brooks and peaty drains in the interior of the county than of the fens.

THE GREY PHALAROPE (*Phalaropus lobatus*) is found sometimes on the coast. The RED (*P. hyperboreus*) has been met with, but is very scarce.

## LECTURE II.

THE COLLARED PRATINCOLE (*Glareola torquata*) has visited us several times; it is in Mr. Paget's list, and has occurred once or twice since he wrote.

Water Rails and Crakes are abundant, as might be expected from the nature of the region we are considering. The WATER RAIL (*Rallus aquaticus*) breeds with us, and continues also in winter. The SPOTTED RAIL or CRAKE (*Crex porzana*) migrates in autumn, rather sooner or later, according to the season, and returns with great regularity to us in spring, between the 12th and 20th of March.

With regard to the Rail, it has a peculiarity during the time of nesting, which I have not found noticed by any naturalist. It has a peculiar and explosive cry. Some years back, a youth, the son of the ferry keeper at Surlingham, told me that he knew of a Rail's nest. We went towards the broad together to inspect it. As we walked forward, I once or twice heard a noise, the cry of some bird unknown to me; and on questioning my guide, he answered at once, "It is the Rail crying out." It was so loud and singular a note, that I doubted so small a bird having such power of clamour; but on creeping up gently behind some alders, I could see the Rails at intervals as they played about in the vicinity, and satisfied myself that they produced the cry in question. I think that the male bird only was thus noisy; but from the long herbage and reeds, from which they only emerged at intervals, am not certain on this point. The nest contained seven eggs, a good deal like the Common Gallinule's, but much smaller.

The two smaller species, BAILLON'S CRAKE (*Crex*

*Bailloni*) and the LITTLE CRAKE (*Zapornia pusilla*) have both been found here, the former several times; it has to my knowledge been shot three times on Barton fen, and it appears far more rare than it really is, as it creeps and skulks about, and scarcely any dog, however sagacious, can compel it to fly. This is the case on those parts of the continent where it is not uncommon: you may pursue it for half an hour, and hardly catch a glimpse of it.

WOODCOCK (*Scolopax rusticola*, Linn.) On its first arrival, often rests for a day on the marum banks on the coast; and the kitchen gardens on the outskirts of Yarmouth are sometimes for a few hours full of these birds; ten couple have been killed there by one sportsman. In the instances in which the Woodcock has been known to breed in England, it has chosen generally rather a dry situation; one however, in 1827, made a nest in a wet low carr in the parish of Hickling. The old bird was killed by a stoat on her nest, and the eggs sucked. Her wings, however, which were shown by the person who discovered the nest, prevented the possibility of mistake as to the species. These birds often arrive in great numbers suddenly, yet an opportunity of seeing their actual migration seldom occurs. The nearest approach I ever saw to the migration of this bird from England, was on the 10th of March 1824: a pair of Woodcocks passed across the road near Caistor, within a few yards of me, flying one behind another directly for the beach, which was within a quarter of a mile. They breed here more than formerly, probably on account of the universal prevalence of fir plantations. I observed a perfectly fresh bird hanging in the Norwich market on the 25th of April 1840; for some days previous the weather had been hot and dry. Three young Woodcocks were taken in Brooke wood a few years back.

GREAT SNIPE (*Scolopax media*, Bewick)—Provincial, "Double Snipe." This bird is very irregular in its visits; a season or two sometimes elapses with scarcely the occurrence of a specimen. In 1831, many were killed during August and September. The heaviest which came under my observation weighed 10 oz.; but the general weight is from  $7\frac{1}{2}$  to  $8\frac{1}{2}$  oz. In the second week of September, 1835, six of these birds were killed at Sutton by the same individual. In flight, this bird does not appear strikingly larger than the Common Snipe, which it does not much exceed in length from bill to tail, or extent of wing; its bulk is the effect of high condition. Of many fresh specimens which I have examined, all without exception were lumps of fat. One which I shot burst from the fall. In rising, it may at once be distinguished from the Common Snipe by the tail, which spreads out like a fan, and shows a great deal of white. It lies until nearly trodden upon, and its flight is slow and heavy. A drier marsh seems to content it than those which the Snipe or Jack Snipe delight in. But this may arise in some degree from the early period at which they arrive. Often by the end of August they are here, and they seldom occur later than the middle of October. They are never to be found in March, the usual period of the Snipe's vernal migration. Mr. Selby makes the same remark upon its non-appearance at that period in Northumberland. See Lloyd's *Field Sports of the North of Europe* for an account of its habits, and also the *Penny Cyclopædia*, article "Snipe," where its preference of dry ground is mentioned. Is on the continent esteemed the first of feathered dainties, see Sir H. Davy's *Salmonia; Diary of a Travelling Physician*; and Custine's *Empire of the Czar*. Here, of course, it is merely a prize for the collector.

COMMON SNIPE (*Scolopax Gallinago*, Linn.) This bird,

the great point of interest to fen sportsmen, has perhaps diminished less in numbers than most of the marsh birds. The enclosure of commons and erection of draining mills, if they curtail the habitat of the Snipe, seem not to render it less common where the ground is suited for its abode. A very small number, comparatively speaking, are bred in the Norfolk fens; they are perhaps more abundant in the breeding season in the Buckenham and Langley marshes than in any others, being there protected from the unfair system of "egging." The first flight of Snipes from other parts appears in the latter end of July or beginning of August, but is sometimes deferred until the latter end of the last month. The birds are generally in good condition at this time, and very abundant, where they find a marsh wet enough to receive them; for they are of course at this season confined to the lowest and most swampy spots. Their stay in this first migration is generally short; they are often abundant in the first part of August, and in September scarcely any are to be found. By the beginning of October the marshes are moister, and the Snipes more generally dispersed. Their abundance and their stay are regulated, in great measure, by the wind and the mildness or severity of the weather. The best seasons for Snipe shooting are those in which moderate easterly or N.E. gales occur at intervals, during September, October, and November. Should too long an interval occur without such wind, the Snipes, when it comes, pour in upon us in great numbers, but generally depart again in a few days. The first severe frost generally drives the main body from the county; here and there stragglers are found, which, in possession of a sharp running rill or spring ditch, seem determined to brave the worst. The first day or two of frost, capital sport is sometimes to

be obtained by searching the drains which remain open. Snipes also betake themselves in large flocks to the turnips; but should severe weather continue more than two or three days, they all vanish. Their return in the spring is variable: parties are often found skimming round the edges of broads, and alighting on the masses of decayed weed and floating sedge, so early as the middle of February; but they seldom settle in any quantity in the marshes, so as to show much sport before the second week in March. Several are often killed at one shot while sitting in flocks on the weeds, especially on a white frosty morning. See an excellent letter on British Snipes in the 2nd Vol. of Loudon's *Magazine of Natural History*, p. 143.

In regard to time of incubation, the Snipe appears very irregular: some may be found nearly ready to fly by the end of May, and others seem just excluded from the shell in the middle of August. It would appear that the Snipes which breed the earliest have sometimes a second brood, and that the late birds proceed from this cause. By the 20th of March, if the weather is fine, some of the cock birds begin the call of love—"to drum," as it is called.

The weight of the Snipe has been generally stated at four ounces; but, like many other birds, it varies very greatly. The later in the season it is killed, unless the weather be severe, the fatter it is. Out of twenty-one couple, killed the 1st of December, 1829, the Snipes being at that time in very high condition, six birds weighed 5 oz. each; two  $5\frac{1}{2}$  oz. each; and one bird within a hair of 6 oz. Although gifted with extraordinary power of wing, they are by nature sluggish and inactive; if undisturbed in fine weather, they merely flight for a few minutes morning and evening, and spend the remainder of the time in eating and sleeping. As they increase, so

they diminish in weight, most rapidly. Those who catch them in ingles, a practice much in vogue in the Cambridgeshire fens, say that a Snipe taken soon after dark by the leg, (the neck is the general part snared,) will flutter off three-quarters of an ounce, and be a lean bird by the following morning.

The Snipes above mentioned owed their weight entirely to an accumulation of flesh and fat; but I am inclined to believe that monstrosity in size sometimes occurs in this species. Mr. Yarrell has mentioned one or two well-authenticated instances of woodcocks nearly double the usual weight. Seven or eight years back, I was called into a poulterer and bird preserver's in Norwich, to look at a Snipe which he was then setting up, and the size of which far exceeded anything I ever saw,—it weighed very nearly eight ounces, although it was not unusually fat; and on comparing it with two or three of the Great or Solitary Snipe (*Scolopax major*), which he had then by him, it was plainly a longer and larger-framed bird than any of them. The preservation was too far gone into to enable me to measure the spread of its wings; but from appearances they would have extended three inches at least more than the birds it was compared with. I have not the least doubt that it was a veritable *Scolopax gallinago*; it had the white abdomen and the tail feathers of the bird, and in air and habit was very different from the Great Snipe, which is short and squat, made like a woodcock. This unique specimen was shot near Horning ferry.

THE JACK SNIPE (*Scolopax gallinula*) seems in migration to be very independent of its congener, *Scolopax gallinago*. They arrive in small numbers by the third week of September; solitary individuals are seen at an earlier period. In 1831, I saw two on the 12th of September, and have observed them as early as the 8th. The

abundance of these sluggish little birds has no reference to the number of the Common Snipe. I find, by notes made at the time, that in October, 1824, in two days' shooting, thirty-seven Snipes were killed by a friend, only five of which were "whole" Snipes; and that later in the same month, nineteen Jack Snipes were shot in one morning, and only one opportunity afforded of firing at a "whole" bird. They are generally lean upon their first arrival; but, if shot in the latter part of November, have increased one-third in weight, and are much fatter in proportion than the Common Snipe. This, in all probability, arises from their sluggish habits. A driving wind, intermixed with sleet, often sets all the "whole" Snipes upon a range of marsh in motion. They are perpetually changing place, and fly in small parties round and round, shrieking out their disgust at the storm. Not so the Jack: the lee-side of a tuft of grass, or a small piece of turf, affords him shelter, and there he ensconces himself with philosophic patience. This sedentary mode of life causes him to "make flesh" very fast. In the spring, Jack Snipes are often found in pairs for a fortnight previous to their departure; and at that period they occasionally emit a feeble piping note when flushed. I have never been able, by my own observation or inquiry, to ascertain their breeding in the Norfolk marshes. On the 1st of May, 1827, Mr. Girdlestone found a pair of Jack Snipes in a marsh near Yarmouth; the situation was most favourable for their breeding. On the 8th of May we both searched the same place, in hopes of finding a nest, but the birds were gone. I have in my possession a Jack Snipe taken in the beginning of July, 1825. A friend had promised to reward a fen-man, if he could show us a Jack Snipe *in that month*. He discovered a solitary one in May, which haunted a swamp near his house; and

not wishing to lose the *douceur*, used every seven or eight days to search, lest the little bird should alter its abode. He observed that, as the season advanced the Jack Snipe in question grew more and more sluggish, until at last it would or could hardly fly twenty yards. When July arrived, he prepared his gun to shoot it; but when flushed it seemed so feeble, that he resolved to attempt to catch it, and after springing it once or twice, struck it down with his hat. Does not this in some degree prove that the Jack Snipe requires some peculiar aliment, some particular worm, which is not to be found in our fens in summer? The bird in question was ragged in plumage, lean and scurfy to a degree. Mr. Edmonstone, in his *History of the Shetland Islands*, speaks of the Jack Snipe as often an attendant upon a flock of plovers, and that it is found on the shingle on the seashore; but probably some small *Tringa* or *Totanus* is here confounded with the Jack. In an old treatise on taking birds by nets, snares, &c., I find under the head "Plover,"—"You shall often get with the plovers, forty or fifty guinnettes into your nets; give them hard blows with your hat, as being scarce larger than a lark, they get through the meshes quickly." Probably the *purre* is the bird that thus attends the plover: all the small *Scolopacidæ* are highly gregarious. By Mr. Yarrell's work, it is seen how a rare species of sandpiper almost always joins company with stints, ring dottrel, &c., rather than be alone.

On the 1st of August, 1833, I saw a Jack Snipe shot upon Barton fen. The bird was in good plumage and condition, and I think had migrated earlier than its wonted time. Mr. Girdlestone shot one in high feather on Belton bog, July 21, 1826. Graves, in his *British Ornithology*, published 1811—1813, is the only author who positively asserts that the Jack Snipe breeds here.

His words are, "In this year, 1812, I found several nests of these birds in an osier carr near London; nest constructed nearly upon the level of the swamp." Mr. Yarrell has assured me that he cannot authenticate a single instance of the Jack Snipe breeding in England. This little bird is hardier, I think, in withstanding frost than the Common Snipe. They, in small number, are still to be found when frost drives away the "whole" Snipes; and after hard weather they return to our marshes again sooner than those birds.

THE BROWN SNIPE (*Macroramphus griscus*, Selby.) A specimen killed in Norfolk is in the possession of Mr. Gurney, of Earham.

THE GREBE or LOON (*Podiceps cristatus*) of course demands particular attention in any observations on Norfolk birds. It will not happen in our time, but perhaps the next generation may speak of this bird, as we now do of bustards, in the past tense. It is sometimes shot for the sake of the feathers,—sometimes as pernicious to fish. The eggs are always taken when found; I have known thirty or forty collected from one broad. Surely there are common fish enough in our extensive waters, and a few might be spared for this bird—the greatest ornament of the Norfolk broads. Its size and beauty, its agility in diving, render it most interesting. Nothing can be prettier than to see it rise on a sunshiny day from its lengthened dive, look round, shake the drops from its neck, and then plunge again unwearied. Where not molested, it is by no means a shy bird. I would instance South Walsham broad as a place where these birds used to be abundant; fifteen or sixteen might be seen, in the same day and at the same time, in different parts of that sheet of water.

The nest is often built in an exposed situation, before

the young reed has sprouted sufficiently to conceal it; but weeds flung over the eggs render the whole so like a clot of decaying water plants, that it is not always easily discerned. Opinions have varied as to whether fermentation has aught to do with the warmth furnished to the eggs of this bird. The nest differs from the coot's in many particulars: it is composed of half rotten decaying water plants, is generally wet to the very eggs, and rises and falls freely as the water alters its level. The coot, on the contrary, always uses the driest rushes for her nest, and appears to add fresh layers, should the water rise greatly: her nest is also elevated a foot above the water, whilst the Loon's is nearly on a level with the element. When the nest is plundered, they immediately make another in the vicinity, and lay again freely. I have found three nests in one morning, in all of which the eggs were covered as here mentioned, and the old bird uniformly quitted the vicinity of her nest by diving. Her exit was only perceived by a vibratory motion of the reeds, like that caused by a pike moving off when disturbed, but slower and more regular. She seldom rises within gun-shot of the person who disturbs her, and if a boat be stationed to intercept her, will tack about and vary her course under water. In 1826, I caught two immature specimens upon South Walsham broad; they swallowed small perch placed on hooks as eel bait. The hook was extracted from them without injuring the birds, and they were turned out upon a fish-pond. From observation on these young birds, I should infer, the Loon, like the cormorant, the gull, and some other piscivorous birds, to be capable of a high state of domestication. They soon freed themselves from affright at the sight of man; and once, whilst angling in a secluded corner of a broad, I was attended for an hour or two by a very young Loon,—the float of my line,

the top of which was painted red, appeared to have a power of fascination. Several times called away by the voice of the old Loon, which was close at hand, it entered the reeds and absented itself, and then returned to gaze at the boat, ourselves, and, above all, the vermilion cork before mentioned, venturing often within two yards of the boat. The fen-man who was with me said that he had before seen similar boldness and curiosity in the young of this bird.

The Loons caught as before mentioned appeared contented, as long as tadpoles and frogs could be found; but as these after some weeks grew scarce, one deserted the quarters provided for it, and could not be found; the other seemed to languish, and was soon destroyed, appearing in a starving condition. There were plenty of tench, large and small, in the water; but the Grebes did not molest them. One of them was observed with an eel in its bill; but tadpoles appeared their favourite diet, and every evening they were busily employed in paddling along the margin, and making incessant darts at their prey. These new comers excited great jealousy among some domesticated wild-fowl, the first tenants of the ponds; and it was amusing to observe the astonishment of the old mallards, when, moving forward to the attack, they had apparently hemmed up the Grebes in a corner. Their foes permitted a near approach with indifference, and then, as well versed in the art of retreat in emergency as Frederick of Prussia, suddenly diving, appeared again at the opposite extremity of the pond. After a few days, however, neutrality was agreed upon, and no feud ensued, unless when a Grebe diving rose near a duck with young ones. I regretted their death, wishing much to observe the length of time which is required to bring the crest to maturity. Latham states, that in the female the feathers of the head

are scarcely elongated. This may perhaps be true of an immature bird; but the adult female is hardly in exterior to be distinguished from the male, the crest being nearly the same, the size very slightly inferior. In 1832, wishing to procure specimens for a friend, I killed a pair of these birds, which had chosen a small pool of water as their own peculiar domain; the female was shot as she moved from her nest, whilst the male sat on the open water close by. Hardly any external difference existed between the two birds. Mr. Proctor, in his visit to Iceland, observed it to be the constant practice of the Slavonian Grebe to dive with its young under its wing. (See Yarrell, article "Slavonian Grebe.") In the case of a Loon shot upon Rockland broad, a similar occurrence took place: she dived repeatedly before she was shot, and no young ones could be observed; when she floated dead on the water, by her side lay a little one, not more than a week old.

The Grebe is not so common as formerly; even upon the waters where other birds are protected, its nest is generally plundered: the fen-men fear its piscatory skill, and consider it as an enemy. In 1822, I saw a pretty large pipkin nearly full of the eggs of this bird, gathered from one broad. Although the bird itself is rank and fishy in the extreme, the egg boiled is pure and well tasted; it is remarkably dirty, the stain of the weeds and the damp of the nest giving a dingy hue to what would otherwise be white, and in size it is about equal to a bantam fowl's, and of a dingy white, the outside very often rough. The manners of this bird vary very much at different seasons. By some naturalists, it has been represented as almost incapable of flight: this is by no means the case. In the early part of spring, when they first arrive, they have little repugnance to flight, and

when disturbed by a boat, or shot at, will, after diving once or twice, rise from the water, and convince any spectator that their dislike to the use of wings does not arise from inability. I have seen a Loon, when disturbed on one broad, immediately make off straight for another, at least two miles distant; but as soon as their eggs are deposited in the nest, both male and female seem to trust entirely to their powers of diving and stratagem for preservation. Indeed, at this time their power of concealment is wonderful. In the summer of 1833, I used to fish continually upon a pool of water a good deal overgrown with reed, upon which water I myself knew of five Grebes' nests; and, arguing on probability, there were others which I did not find. Yet, during the whole season, I only twice saw a Loon,—I perpetually perceived them dive away. This bird removes towards winter to the arms of the sea in Suffolk and Essex, without waiting to be fairly frozen out, as the coot does, and returns with the earliest spring, when four or five are often seen together flying at a great height. Is a very local bird, and perhaps can be more easily observed as to manners, migration, &c., in Norfolk, than in any other part of England.

RED-NECKED GREBE (*Podiceps ruficollis*.) Several of these birds have come under my observation, killed upon Breedon and elsewhere; most of them were immature specimens. My friend Mr. Girdlestone was in possession of one. It never breeds in Norfolk, that I am aware of. I once saw two immature Grebes swimming in summer which resembled this species, but am very doubtful on the point.

Under the name of Dusky Grebe, in their winter plumage, two rare birds have been confounded amongst us—the EARED GREBE (*P. auritus*) and the HORNED GREBE

(*P. cornutus*.) Mr. Gurney tells me that he has never met with the Horned Grebe here in summer plumage, but that he can, in two instances, verify the Eared Grebe in full summer plumage.

The smallest Grebe, the DABCHICK (*P. minor*) of our streams, must have a word thrown away on him. With most confined powers of flight, this little bird appears in some way or another to effect a partial migration. The nest is very seldom found. A collector of eggs told me that, in twenty years, he had only obtained the eggs once. When observed, it generally is in some nook or turf dyke communicating with a broad, and not, like the nest of the Loon, close to the main sheet of water. The bird in summer is rarely to be seen; but with the first frosts they appear as if by magic, popping up and down upon our rivers and smaller streams, and the marvel is, how they get there!

I have called particular attention to the case of the Loon, for really he needs commiseration and protection. Were he to vanish, a great link would be lost in our local fauna; and, in my own time even, such alteration has taken place, that we may fear total desolation amongst our marsh birds.

When I first visited the broads, I found here and there an occupant, squatted down, as the Americans would call it, on the verge of a pool, who relied almost entirely on shooting and fishing for the support of himself and family, and lived in a truly primitive manner. I particularly remember one hero of this description. "Our broad," as he always called the extensive pool by which his cottage stood, was his microcosm—his world; the islands in it were his gardens of the Hesperides,—its opposite extremity his *ultima Thule*. Wherever his thoughts wandered, they could not get beyond the circle of his beloved lake;

indeed, I never knew them aberrant but once, when he informed me, with a doubting air, that he had sent his wife and his two eldest children to a fair at a country village two miles off, that their ideas might expand by travel: as he sagely observed, they had never been away from "our broad." I went into his house at the dinner hour, and found the whole party going to fall to most thankfully upon a roasted Herring Gull, killed of course on "our broad." His life presented no vicissitudes but an alternation of marsh employment. In winter, after his day's reed-cutting, he might be regularly found posted at nightfall, waiting for the flight of fowl, or paddling after them on the open water. With the first warm days of February, he launched his fleet of trimmers, pike finding a ready sale at his own door to those who bought them to sell again in the Norwich market. As soon as the pike had spawned, and were out of season, the eels began to occupy his attention, and lapwings' eggs to be diligently sought for. In the end of April, the island in his watery domain was frequently visited for the sake of shooting the ruffs which resorted thither, on their first arrival. As the days grew longer and hotter, he might be found searching, in some smaller pools near his house, for the shoals of tench as they commenced spawning. Yet a little longer, and he began marsh mowing,—his gun always laid ready upon his coat, in case flappers should be met with. By the middle of August, teal came to a wet corner near his cottage, snipes began to arrive, and he was often called upon to exercise his vocal powers on the curlews that passed to and fro. By the end of September, good snipe shooting was generally to be met with in his neighbourhood; and his accurate knowledge of the marshes, his unassuming good humour, and zeal in providing sport for those who employed him, made

him very much sought after as a sporting guide, by snipe shots and fishermen; and his knowledge of the habits of different birds enabled him to give useful information to those who collected them. These hardy fen-men, inured to toil and privation, were the great supporters of an old Norfolk pastime, as they doubtless thought it,—“Camping.” It required muscle and endurance of pain beyond common limits, and somewhat resembled the *pancratium* of the ancients, but was rather more severe.

WATER HEN OR MOOR HEN (*Gallinula chloropus*, Pennant.) Although this bird is so often found exactly in the same situation as the coot,—although they nest and bring up their young together,—no birds differ more in habits. The Moor Hen is familiar, half domestic—not shunning, but courting, the company of man. If food is thrown down for pheasants in a carr in the marshes, the Moor Hens arrive at the keeper’s whistle even before the pheasants. If a cottage is built close by the edge of a broad, Moor Hens are sure to draw towards that part of the water, particularly if fowls are kept, with which they share whatever grain is allotted to them. The coot is at once driven away by the same means,—the noises of the children, the barking of the dog, the music of the pig in the sty, affright him; he seeks the solitary reed beds and the open water. In winter, the Moor Hen, pressed by hunger, gets still bolder, comes up to the very door of the marsh cottage, and roosts in the fence of the small enclosure marked off as a garden; the coot, on the contrary, leaves the country altogether; trusting to the mercies of man does not suit his ideas at all. This bird never collects in the large flocks which the coots form themselves into, but is yet somewhat gregarious, particularly in hard weather. Forty-three were seen in hard frost, collected in an open splash of water at the end of a large alder

carr. Suffers as much, probably, from hard weather as any bird; a severe winter always greatly thins their numbers for the next spring,—either not having inclination or ability to migrate, they are terribly cut up. It is a very difficult bird to retain in captivity, even when deprived of the power of flight. A walled-in garden has proved insufficient; the trees against the wall are made use of, and the captive claws by degrees to the top, tumbles down upon the other side, and walks off with the air of a Jack Sheppard. A curiously variegated variety of this bird was shot by a friend in the winter of 1844: the extreme half of each wing, including the large quills, was milk white, and the back mottled with the same hue.

THE COOT (*Fulica atra*, Bewick.) The common inhabitant of the broads. A broad entirely devoid of Coots, would be London without sparrows, or Newcastle without coals. Is universally dispersed in the breeding season: wherever there is a pool, there is the Coot in greater or lesser numbers. Formerly, it was left unmolested until the young ones could fly; now, the eggs are much sought for; five or six hundred have been taken in one season from Surlingham broad, the nearest pool to Norwich, and not a large piece of water. Collects in autumn upon the large waters, leaving the smaller pools entirely, and is found in immense flocks on Hickling broad, Horsey mere, &c. On Hickling broad, a fen-man, to whom I put the question, What quantity of Coots might there be? returned for answer, "About an acre and a half." This is not so vague a mode of calculation as at first appears, for Coots swim evenly at regular distances from each other, without huddling together into dense masses like wild-fowl. The only utility which can be discovered in the Moor Buzzard, towards the fowler, is its driving the Coots together so as to afford a better shot. Thirty-one have

been killed at a shot when driven in by a pair of buzzards. Sir T. Browne notices the constant warfare of the Moor Buzzard with this bird, and says that the Coots defend themselves by huddling into a dense body and flinging up the water. Although constantly associated with wild-fowl, the Coot differs much in habits. The wild duck by nature is nocturnal; the Coot, on the contrary, feeds by day, and by night draws into the reeds a good deal for shelter. On our larger waters, portions of reed may often be seen beaten down by the discharge of a large gun by night at the Coots, which sit closer together at this time than in the day. Probably this habit, of feeding and watchfulness in the day, makes them, as Colonel Hawker has observed, good watchmen to the wild ducks, which go to sleep relying on the Coot's alertness in espying danger. They remain upon the broads as long as possible; when the water in general is frozen, they will crowd into the wake made by the swans, which always remains open long after the main pool is frozen. An opening of this kind is sometimes entirely filled with Coots. They appear to dislike the migration to salt water, which is then their only resource, and to be willing to undergo any hardship rather than leave their beloved broad. They are, though very plentiful, seldom exposed for sale in the market; most of the fen-men, however, prefer them to a wild-fowl. When cleansed nicely from the black down, which the natives understand well how to do, they are very delicate in appearance, plump and white to a degree.

In the fens, this bird is still most abundant, although, as before said, the nests are plundered. Indeed, in many places it does not now pay to search for the plover's eggs, and therefore coarser kinds are accepted as a substitute. Formerly in May, the noise of marsh birds was incessant

as you walked through a fen,—redshanks, reeves, and black terns, were perpetually dashing around you; and the various notes,—some pleasant, some discordant,—if heard for hours, took such hold upon the sensorium, as to haunt you afterwards in the manner beautifully described by White of Selborne with regard to musical sounds.

Before I speak of the Duck tribe, I will say a few words on the DECOY,—that most ingenious manner of taking wild-fowl, wholesale, without alarm to the nest, and with no fatigue to the fowler.

In the following notes on decoys, the reader is supposed to know that a decoy is a sequestered pool, with curving ditches, and of the depth of sixteen or eighteen inches of water in them, dug from the main water and covered with a net; and that the fowl are taken by alluring them from the main water into these fatal retreats. And here, in fact, the knowledge of many, even of naturalists, terminates; for it is not always an easy task to obtain admission to a decoy. When in the hands of illiterate men, it is almost unapproachable by any one: “*Procul o procul este profani*” is the cry, and they hide their manœuvres against the wild-fowl in as much mystery as the Rosy-crucians threw around their search after the philosopher’s stone. I have to thank a friend, a naturalist and sportsman, who works his own decoy, for whatever insight I have of the system.

A decoy is not to be viewed, as some consider it, merely as the shambles for wild-fowl; and breaking the necks of forty or fifty unlucky ducks, consecutively, is not the main point of interest in the affair. It is perhaps the best place in which to speculate and gain knowledge on the habits of various birds. In a menagerie these habits alter; the wildest become the tamest, and *vice versa*. For





instance, the ruff, which, in the marsh will scarcely admit approach within a furlong, picks up worms boldly within a few yards of his feeder; but, in the view given through the reed screen of a decoy-pond, you see nature as she really is: there, perhaps within twenty yards, are various species of ducks, perfectly unconscious that any one is eyeing them. The coot is diving unconcernedly in the pipe, and at the mouth sits a heron, apparently lost in reverie, but nevertheless "wide awake," and looking out for the first passing fish; a little further, in the open water, a loon is fishing,—you can see the eel struggling in his bill as he draws it from the water. It is upon the days not favourable for taking fowl that most pleasure is received; the spectator can then loiter a little, and at his leisure observe the different motions and habits of the various birds under his ken. For instance, the owner of the decoy I am most acquainted with, in the summer of 1842, observed three kingfishers fishing in the same decoy-pipe; they took small fry within three yards of him, so that he could plainly observe the whole operation. In the pipe at the same time were four stints walking about, and searching the edge of the bank, at his very feet. These pipes or ditches, at their juncture with the main pool, are seventeen or eighteen feet across; the first hoop of netting, which is seven or eight yards up the pipe, is about ten feet in height; the hoops on which the netting is supported diminish in size gradually, and the purse net, into which the fowl are driven, is not of greater diameter than a common bow-net for pike. The reed fences must be about five feet and a half high, so that a moderate man, with a little care, is concealed behind them. Lofty stature is not to be desired in a decoy-man. The lower the reed screen is, the more free and open the passage appears, and of course fowl come into it more readily. The pipe

measured on the curve is seventy-five yards, or thereabouts, and the reed screens are eleven, twelve, or thirteen in number, each about twelve or thirteen feet in length. The aperture over which the dog leaps is about four feet wide.

In former years, the practice in making the Norfolk decoys, was to set aside for this purpose a pool containing perhaps sixty or seventy acres, and oftentimes much more ; a few pipes were dug, nets and reed screens erected, a decoy-man appointed ; and the owner might be sure that, if he had not a decoy through which he could send many ducks to the market, he had at least a capital preserve for wild-fowl. Here, free from the annoyance of the fowler, they collected in thousands by day, distributing themselves over the marshes, far and near, in their evening flight. A decoy of this kind, instead of causing jealousy amongst the gunners, was looked upon as their most direct assistant ; they well knew that not one fiftieth part of the birds would ever be taken, and that the rest were left for them to exert their skill upon every morning and evening. For, in a decoy of these dimensions, thousands of ducks may be collected, and yet sometimes not a single fowl will "pipe," as entering the netted avenue of destruction is technically called. A little rough weather, a contrary wind, their own caprice, and many other causes, will oftentimes cause them to keep so far from the shore, that neither the decoy ducks, nor the more powerful allurements of the dog, can have any influence over their movements. Besides, some kinds of duck, although quite willing to accept the safe asylum of such a guarded piece of water, are not to be taken in a decoy,—the Pochard, for instance, which always saves itself by diving back in the pipe. Immense flocks of this particular duck were wont to rest all day in the middle

of Rollesby decoy; whence they poured forth to feed every evening. Hickling broad was one great resort at their flight, the water there being shallow and abounding with a particular weed,—*Pochard Grass*, as it is called.

This species of duck is a nuisance in a decoy, always eluding capture and hindering success with regard to other fowl. A peep through the reed screen of a pipe will sometimes show the whole breadth of the ditch occupied by pochards, busily diving for the grain which has sunk; they move *agmine conferto*, and in vain do teal or other fowl endeavour to come up the pipe at sight of the dog,—they are driven back by the selfish and rapacious dun birds, which sometimes in this way usurp the entire possession of a pipe. A plank, having barley fastened upon it with resin, has been sunk, and snares placed over to entangle the diving birds, with success; but, although more were thus captured than might be expected, as a system this does not answer; the other fowl become quite shy of the pipe where this is done: probably the struggles of the drowning birds under water affright them, by disturbing the surface of the water in some degree. If a dun bird is taken, it generally is a solitary individual, which imitates the manners of the fowl it happens to come into a pipe with, and rises and flutters forward, instead of returning down the pipe. Teal, wigeon, and mallard are what make a decoy-man's harvest. In the winter of 1841-2, out of twelve or thirteen hundred taken in a Norfolk decoy, the bulk were of the three above species, with five or six pintails, three gadwalls, one dun bird, and one tufted duck. Probably the difficulty of taking the pochard arises, not merely from its aptitude in diving, but, from its possessing superior sagacity to teal, mallard, &c. A good many pochards, coming for several days into a pipe, and eating

the food thrown for wigeon, an attempt was made to take them by means of a net sunk in the water near the entrance of the pipe, and arranged so as to draw up like a curtain, one side remaining still at the bottom of the water. Everything appeared to go on favourably: food being thrown for the wigeon, about thirty pochards came into the pipe, and, at a sign from the decoy-man, a confederate drew up the net, and displayed his hat as usual to drive the fowl forwards. The wigeon rushed up into the purse net, and one unlucky pochard, that left his friends and followed them, was caught. The pochards as usual dived back in the pipe. On arriving at the net, one or two got entangled; the rest seemed at once to fear treachery: they returned fluttering confusedly up the pipe, as if about to enter the purse net. When they arrived nearly at the extremity, they faced round at once, and all rose and flew, nearly scraping their backs against the netting of the pipe; flew quite over the decoyman's assistant; and all went out at the aperture left just at the bend of the hoops, where the net, instead of following the arc of the hoops, was strained straight across. The part unoccupied by net was not more than two feet wide: through this narrow outlet they all escaped.

Great improvements have of late years taken place in Norfolk decoys, and some are admirably worked. An elderly man named Skelton, who migrated from Lincolnshire, caused a decoy to be made of a very different size and kind to the large straggling pools commonly devoted to this purpose. The main basin contained not more than two acres; and great was the derision caused by this little puddle, as it was contemptuously termed. However, the laugh was soon silenced; for, during the November of his second season, he took in six consecutive days a thousand and ten fowl, principally teal; and his efforts since have





tended constantly and considerably to diminish the ducks upon the adjacent waters. In this confined space, the weather must be unfavourable indeed if an artist cannot "pipe" some of the fowl upon his pond. Moreover, there is a more rapid change of inhabitants, and a duck as a new comer is far more easily caught, than when it has sailed repeatedly near the pipes; hearing sometimes the flutterings of those which have ventured too far for safety,—perhaps sometimes seeing more than tended to the credit of the establishment.

A decoy, to be complete, should be sheltered on all sides by thicket and reed; the less the wind affects the water, and the more screened it is so as to present a warm lee-side, whatever wind is blowing, the better is the chance of taking fowl. It should bear with its pipes some resemblance to a gigantic spider with extended legs; indeed, when we consider the purposes of a decoy, the spider is not a far-fetched simile. These pipes should be disposed to suit different winds; for the most advantageous time to endeavour to lure fowl up a pipe is when the wind sets nearly from the apex of the pipe, where the purse net is placed, into the pool. Ducks swim most readily with their breasts to the wind, and, besides, they always collect upon the lee-side of the water. Especially should there be a pipe to suit the N.E. wind well, that being the breeze which brings most fowl. In Norfolk, the common wild duck and the teal form the principal harvest. The wigeon, in many parts of England, is the chief gain to a decoy.\* Sir T. Browne, writing two centuries ago, remarks the great abundance of teal in the county. These familiar little birds work the most readily

\* Wigeon, in Norfolk, are more uncertain in numbers and irregular in time of migration than the other two species.

to a dog of all wild-fowl. When fresh comers, and unsuspicious, they quite crowd on one another to enjoy the sight, and turn about with doubt and dissatisfaction the instant the dog disappears behind the screen, pushing forward again with alacrity as soon as he reappears. Above all, a decoy should be noiseless,—no road or navigable river should be near: the passing of a waggon, or the hoisting or lowering of a wherry sail, is enough to disquiet fowl at a great distance, especially upon a calm day. All the fowl in a large decoy have been put upon wing, merely through a few blows given in mending a gate at the distance of half a mile.

If it is on the coast, another advantage is gained: the fowl come to it fresh from other countries, unsuspicious, and willing to rest anywhere, if quiet can be obtained. Foreign fowl are much more easy to take in a decoy, or to approach with a gun, than those which have been some time amongst us, and become wary through frequent attempts made upon them. The most favourable opportunity for taking a flock of fowl, wind and weather being propitious, is when they have been four or five days in the decoy,—long enough to become somewhat familiarized to their new abode, and at the same time still without suspicion of the stratagems practised upon them. A decoy is exposed to other dangers. A heron is a frequent and evil visitant: sometimes perched on the most elevated part of the hoop of a decoy pipe, he surveys the country round—sometimes he takes up his fishing quarters on the smoothed margin at the entrance. His stalking about on the bank, with long strides, does not add to the comfort of the fowl sitting there in the middle of the day, or “banked,” as the decoy-men term it. Moreover, this bird is more alert and watchful than even a wild-fowl; the slightest noise springs him, and his sense of smelling is

so acute, that he is often alarmed by the very turf which, in working a decoy, is carried in the hand, to prevent the effluvia of the person from reaching the fowl: into the air he rises, and his shrieks of dismay, and the heavy flap of his pinions, disturb all the fowl near a pipe, and make them suspect a danger, though they know not whence it comes.

The quiet of a decoy-pipe, the complete shelter which it presents, and the agreeable shallowness of its water (from one to two feet) oftentimes induce that meditative fish, the pike, to loiter there for the sake of indulging a brown study. Nothing can be more unfortunate for a decoy-man: everything perhaps is going right,—the dog has worked beautifully—the wild-fowl have slipped off the bank and hastened to him readily—some decoy ducks are forward in the van as they ought to be,—when the roll of a lazy pike is seen, and the splash of his tail, as he turns to inquire what these strangers want, and why they intrude on his solitude; one whirr of affright is heard, and the next instant the pipe is deserted by its late wild tenants, and has nought within it but the decoy ducks, clamorous for the few grains of barley which on these occasions are generally thrown to them.

The otter is also a foe much to be dreaded; although he prefers fish to wild ducks, and does not molest the latter till forced by frost and extreme hunger, when, like the fox, he will rob a hen-roost; yet his journeys along the shore, and his voyages in the pools, fill the wild-fowl with dismay. One otter will cause all the fowl to desert that part of the decoy where he has set up his quarters, however favourable the wind may be to their remaining there,—and by wind their motions are greatly determined.

The obvious hostility of various hawks need only be touched upon. The Moor Buzzard formerly was a great

pest: the possessors of decoys were always at war with him, and the hostility was carried on at disadvantage, as occasionally the plain mode of shooting could not be resorted to, because that would alarm the fowl more than his presence, and the remedy prove worse than the disease. The Peregrine Falcon, naturally the foe of water-fowl, would be even more to be dreaded, were not his erratic disposition considered; in Norfolk, he is here to day and gone to-morrow, stretching far towards the remembered wilds of the North of Europe.

Dogs and decoy ducks are the direct means of destruction and are generally used together. As to breed, that is totally disregarded in the dog used as a "piper;" but he must be small, active, and at the same time docile, and ready in coming to his master; perfectly mute, and devoid of all sporting taste, taking no notice whatever of the fowl. These last qualifications are of course a "*sine quâ non*." The colour preferred is reddish or brown. A friend, who works his own decoy most skilfully, had one which he valued from its near resemblance to a fox, which, he said, he believed the fowl took it for. The motive which causes wild-fowl to come to a dog, is precisely the curiosity which prompts tame ducks in a pond to head up together, and approach a dog when he goes to lap water. Of course care is required in the education of a dog as a piper; the quicker he is in motion and apprehension, the better—the more sudden his exits and entrances are through the reed screens, the more the attention of the fowl is engaged. This education may be carried to considerable length in a house, by building up furniture, and making the neophyte spring through apertures left amongst tables and chairs. The curiosity of fresh fowl is most powerfully excited by the appearance of the dog popping backwards and forwards, seen for

one instant, and then again disappearing behind the screen; but this attention to his movements soon goes off—when ducks have been very long in a decoy, they regard the dog's manœuvres with perfect apathy, and all species are not alike willing to approach him. The common wild duck and the teal work capitally to the dog; but the wigeon, although most lively and sportive in the water, does not pay so much attention to the "piper." Very often wigeon must be fed into a pipe by refuse malt, oats, and whatever food will float, the wind at the time setting from the point of the pipe towards the pool, when a portion of the grain soon finds its way into the open water, and the fowl gradually work in pursuit of it. In this way, the pochard is often brought under the net in considerable numbers; the wigeon keep picking at the floating food, and the pochards diving for the sunken grain; but on the decoyman showing himself, the latter always dive or flutter back past him.

The decoy ducks must be *really tame*, and familiarised to the view of man. The feeding them judiciously is an important point. They should, when properly trained, be fed in the evening in a pipe, just after the wild-fowl have flown out of the decoy. Their appetites should be so far appeased, that, in the middle of the day, they are neither very ravenous, nor yet indifferent to food. If too hungry, on hearing the faint and almost, to human ear, imperceptible whistle which calls them to assist the decoyman, they flutter and splash along the water with loud cries, so as rather to alarm than allure the wild ducks. If, on the other hand, they are gorged with food, they may disregard the signal altogether. On hearing the whistle, they should swim evenly and steadily forward: being used to receive their food in a pipe, of

course they rather affect than shun it. Any whistle or signal at all is often quite superfluous; the first sight of the dog between the reed screens will bring them; they know that, happen what may, *they* shall get some barley.

During the five or six months that a decoy is in employment, all repairs incidental to it must be carried on at night. A very strong wind sometimes prostrates a screen, or deranges the net strained over a pipe. This must be all put in order by night, work beginning as soon as the fowl have made their evening flight; and six or seven men are often thus busily employed with lanterns. Formerly, any frost, which laid the main water at the entrance of pipes, was deemed a final check, and nothing was done until a thaw; but now, on the improved system, the ice is broken up and the pipes cleared as much as possible early in the morning, before light, and the fowl are allured by food scattered in the pipe. Great success is thus often attained; and in very severe weather, those who go at three or four o'clock in a winter's morning to break up ice in pipes, often find and take fowl which had remained all night for the sake of the food.

It has before been said that a decoy mainly depends for success upon its freedom from noise and disturbance. Formerly a charter of decoy was supposed to give the owner of it such rights, that a gun fired or other noises made upon his neighbour's land, might be resented and punished by law as a malicious nuisance. But doubt may be entertained in the present day, whether anything confers perfect security on a decoy, but the possession of land to such extent around it, as to bring the quiet desired. Decoys, which promised to be productive, have been abandoned just after formation, merely because shooting in the neighbourhood could not be prevented.

Sir T. Browne speaks of decoys as abundant in this county; and Blomefield names one of a distinguished Norfolk family as the founder of decoys:—"Sir Wm., son of Sir Wm. Woodhouse, lived in the reign of James the First, and is said to have been the first person who in England invented and erected decoys for taking wild ducks." In very many places in the present day the "Decoy Carr," or the "Decoy Marsh," still occur in name, from the place having been formerly so used. The drainage of fens, alteration in the haunt of fowl, and other causes, tend of course to corresponding change in the position of decoys. Several such mutations have occurred within the last few years.

The banks near the pipes are smoothed, and kept free from rank herbage, to some extent on each side the entrance of the pipes, to allure fowl to sit there, and about noon, or just after, when fowl are generally "banked," is thought a good time of day for working a decoy,—the fowl have had their morning sleep on returning at dawn. But to do this with certain success, it is necessary to be conversant with many arcana of the craft. There is much to be studied before hand. The dispositions of different species, the time they have been in the decoy, the weather, the wind, the season of the year, whether early or advanced, are all to be taken into account. In early spring, in fine genial weather, the ducks and mallards betake themselves to the marshes and leave the decoy a great deal; whilst widgeon and teal, although remaining on the water in considerable numbers, are far too intent on a warm day on doing the agreeable to each other, and adjusting their rivalries, to pay much attention either to food or the decoy dog.

From information gained from Skelton the Winterton decoy-man, it seems that the science, for such it may be

called, of working a decoy, is far better understood in Lincolnshire than in Norfolk. He spoke also of larger numbers of fowl as sometimes captured,—for instance, nearly three hundred duck and mallard in one morning. One instance has occurred of two hundred and twenty teal being taken at once in Norfolk, and this is the most complete success I am aware of. One point he insisted much upon—the importance of not hastily condemning a decoy, because success is not immediate. Often, he said, for the first two or three years, the expenses were not paid by the fowl taken; and then a sudden change might take place, and fowl crowd into the pond in great numbers. Unless the price of wild-fowl should rise, it is probable that the number of decoys, both here and elsewhere, will diminish. London is now inundated with Dutch fowl, which are sold at a very cheap rate; nay, carts may occasionally be seen in the streets of Norwich, loaded with the same commodity from France and Holland. The sale of game has also tended to depreciate wild ducks; and in point of emolument decoys cannot be at this time called at all prosperous. When many fowl are bred at home in the marshes adjacent to a decoy, they offer themselves for destruction long before the market is good, or the weather permits of keeping them. The young ducks of the year might be taken in numbers early in September. Indeed, if slaughter alone were the object, without any reference to emolument, it is probable that September would be the busiest part of the season, especially in decoys with a large tract of morass at hand in which many fowl are bred. These home-nursed birds begin to leave the marshes for the open water in August, and might soon be taken in great numbers, being far more unwary and heedless than older fowl. But, at present, the sale of partridges keeps down the price of ducks completely in

the early part of the decoy season, and the general heat is too great to ensure them safe carriage to any distance. If price, &c., were more tempting, a decoy-man could take hundreds of young fowl, which, perhaps, later in the year leave the water altogether, or become too wary to be entrapped.

In every decoy, on an estate where game is preserved, care should be taken that the decoy-man is honest, and that there is a good understanding between him and the guardian of the pheasants. If wild-fowl are lured by hundreds, in spite of their cunning and distrust, it is plain that the tenants of the preserve, nearly as tame probably as chickens, can be persuaded to enter pipes at will. There is always a dry margin on each side for them to walk upon, and the barley belonging to the decoy ducks is sufficient bait.

Formerly it was thought necessary that decoy ducks should be of the direct wild breed, but now, similarity in feather is the only thing insisted upon; and the tame ducks, if right in plumage, are preferred, as becoming more familiar. About midsummer they are trained, which is done by shutting them in an outhouse in some quiet spot, when they should be fed by the person who is to use them, who should, whilst they eat, whistle in the note he generally uses. They will soon when hungry listen for his step, and respond to his whistle, although very faint, at a good distance. They may then be removed to the decoy, where they must, as before said, be fed in the pipes and familiarized perfectly to them, always remembering that they must not be *too* bold; a decoy duck that does not turn back when the pipe gets very contracted, but goes boldly into the purse net, is held as of no value—as it knows the way in, it may also some day turn back suddenly, and show a net full

of wild ones how to get out. In very severe weather, they are sometimes confined in a pipe after the ice is broken, by a brace or ligature, like that used by bird catchers to linnets, &c.; and three or four thus fastened, do a great deal to prevent the water freezing by the constant undulation their motion produces.

Before ending the subject, I shall endeavour to explain the mode in which a pipe is worked. About one or two P.M. the decoy-man visits his pipes, and, unseen, makes his observations behind the reed screen. Should he see the banks at the entrance of a pipe well lined with fowl, and the wind be pretty favourable, he looks out for a decoy duck or two—every pipe should be frequented by a portion of these, the decoy-man's *gendarmerie*—if any are in sight, probably they will come in expectation of barley as soon as the dog is put round; but should they be out of ken, the slightest whistle will command their attention, and if they act their part well, they probably will bring more or less of the wild-fowl to the entrance of the pipe—they seldom persuade them to come further. The decoy-man, posting himself at one of the screens nearest the pool, flings a mouthful of bread, which the dog does not directly pick up, but performs a *circumbendibus*, jumping over at the opening before him, and returning to his master at the next; thus appearing to the fowl for a moment, and then vanishing. If they follow the deceiver, the dog is worked at the next screen, going up the pipe, and the decoy-man runs him round, quicker or slower, according to the motions of the fowl, which he can see by peeping through the reed screen. In all the screens a piece of stick is left sticking in the reed, by moving which, right or left, a momentary small aperture is made for the eye to see what is passing on the other side. There is great nicety in working a dog

to the best advantage. Should all go right, and the fowl work well, when they have ascended the pipe far enough, and nothing can be seen by the ducks remaining in the pool, his assistant steps up, or the decoy-man turns back and displays his hat behind them; a confused skurry then takes place, all striving to be first into the fatal purse net. Novelty seems to be a great attraction. When sleepy, they will not sometimes stir unless the dog has a handkerchief tied round his neck, or something else done to make him remarkable. The friend from whose practical knowledge I have made these notes on decoys, on one occasion succeeded in alluring some fowl, careless to the dog, by putting a ferret through the evolutions customary to the dog. By means of a line tied to it, the new performer went through its part well the first time; but being tried again would obstinately go precisely the wrong way. It appears that the curve of the pipes in a decoy should be turned the same way in each; they are generally made according to the course of the sun, from left to right; if some are one way and some another, it puzzles the dog—he is apt to work counter. When pipes are laid down in the opposite curve, they are called by decoymen “left-handed pipes,” as the bread must be thrown with the left hand. The representations of working fowl, which originally appeared in the *Penny Magazine*, and have been copied into other works, are not entirely correct. In one, the dog, instead of being before the fowl, is behind them, apparently driving them up the pipe; and in another, a gentleman in marsh boots, with a duck gun, and a water spaniel with a duck in his mouth, stands ready to greet their arrival. Decidedly, a decoy-man would marvel greatly at the appearance of such a phenomenon in his domain. The presence of a single confederate, if fowl work well, is to be dispensed with;

even with the assistance of turf and the greatest care, the sense of smell is so acute in wild-fowl, that they easily detect the slightest addition in numbers.

As might be expected from the extent of our marshes, several species of wild-fowl breed regularly in Norfolk, —the Common Duck of course;\* the Teal in some numbers; the Garganey and the Shoveller occasionally; and on the coast the Shelldrake. I have known sixty or seventy teal collect together of an evening to feed, so early as the first week in August. These birds must have bred here, or the migration must have been most unusually early. In two instances in the last year or two, I have known of a teal's nest in the neighbourhood where I reside, which is a high and dry part, with only here and there a small stream and little bit of fen, on which turf is cut. This is mentioned as the bird has sometimes been thought to nest here but seldom. But besides these instances, which are of regular occurrence, I think that research would show that other fowl occasionally nest in our marshes. The Pochard (*Anas ferina*) has been said to have bred on Scoulton mere. I am here quoting from memory, but I think Shepherd and Whitear say so in their "Catalogue of Norfolk Birds" in the *Linnæan Transactions*; and more recent observation has corroborated the fact. I know of no particular instance in which I can prove a nest; yet the whole of this last summer, three pochards remained together on the open parts of Ranworth decoy. Arguing from the habits of the common mallard, which are well known, these would of course be the three drakes, and three ducks were sitting in the adjoining marshes.

\* Where perfectly unmolested, ducks still breed in great numbers; 1200 or 1300 fowl are bred in some seasons in the wilderness of reeds and water between Ranworth decoy and the river.

THE POCHARD (*Anas ferina*, Linnæus)—Provincial, "Poker," "Sandy Poker," "Dunbird." Frequents our broads in large flocks during winter, resting generally in the day-time on some of the larger decoys, and in its evening flight removing to the most extensive waters, such as Breedon water, Horsey mere, Hickling broad, &c. This last is a favourite haunt of the Pochard on account of its shallowness, which gives the bird easy access to those beds of weed from which it draws its support. The whole night is spent by these birds in diving for their food; and the "working," as the gunners call it, of a large flock of Pochards, may be heard, on a still night, at least half a mile. During this time, they in general do not present a favourable shot to the fowler, as half the flock is under water, and they sit very widely dispersed. But no sooner does the grey light of morning glimmer faintly, than the Pochards begin, as the gunners term it, to "head up" together, in preparation for flight to their day quarters; and at this time a very profitable shot is often made with a swivel gun and punt. They are occasionally seen at sea, but are only accidental visitants there. Although they frequent decoys, they will not enter the pipe; or if stragglers do so, they immediately escape by diving back again. The decoy-man at Winterton (a most weighty authority in his line) told me, that one winter, during a hurricane from the N.E., he surprised four or five Pochards so far up a pipe that they got confused, tried to fly instead of diving, and ultimately got into the purse net. He appeared to regard the occurrence as most uncommon. The plan of taking this bird by a net stretched on lofty poles, which rise suddenly and take the Pochards in their flight, was, and I believe is still, practised in Essex, but has never been resorted to in Norfolk, (see Daniell's *Rural Sports*, article "Pochard.") This is the best wild-fowl for the

table of all the Anatidæ; has the honour of a near relationship to the celebrated Canvas-back Duck of America, which has its name, "Valisneria," from a particular grass on which it feeds. The Pochard is found in America generally in company with the Canvas-back, and feeds in the same manner; appears sometimes in frost upon the higher parts of our rivers, but not so commonly as the Tufted Duck and the Golden Eye. With regard to the Pochard's breeding in Norfolk, the following is extracted from Girdlestone's memoranda: "Upon Hickling broad, August 16th, 1827, I found four Pochards, three of which I shot. They turned out to be all young fowl, no doubt bred somewhere in the vicinity. I am informed that this duck has bred upon Scoulton mere."

I have since heard from an accurate observer that he has shot the young Pochard at Scoulton, and that flappers of this species were not uncommon there; but that the quagmire where they were found was so rotten, and the reeds so high, that the difficulty of shooting them was very great.\*

THE SHOVELLER (*Anas clypeata*, Linnæus)—Provincial, "Beck." Breeds occasionally in the Norfolk marshes; prefers rather a dry marsh to nest in, to the rushes round our broads. A brood or two are hatched every year, in the marshes round Winterton decoy. I have known young fowl of this species during August at Horsey, and have seen broods of them upon Hickling broad. They are not so difficult of access as most other wild-fowl. More frequent with us in spring and summer than in the depth of winter. I see by a memorandum of Mr. Girdlestone's that the eggs have been hatched and the young brought

\* From recent inquiry, the pochard has ceased to breed at Scoulton: the teal and wild duck still nest there.

to maturity in Yarmouth. Lays from seven to nine eggs, similar to the common wild duck's, but shorter in shape and much smaller.

GARGANEY (*Anas querquedula*, Linnæus)—Provincial, "Summer Teal." This elegant little duck breeds sometimes with us; broods of them are found upon the broads in July and August. They generally appear in March, whence their name of Summer Teal. I have seen the immature bird in August: on comparing it with two young teal killed on the same day, it was easily distinguished by the greater length of neck, more slender habit in general, and the lighter colour of the plumage. A friend received a pair alive in March 1822, from the Winterton decoy, the female of which deposited an egg in the basket during her journey. Is very rarely seen during severity of weather; indeed, I cannot recollect a single instance. A great many Garganey are bred in confinement in Holland. According to the following observation, taken from Girdlestone's memoranda, the nest of this duck is rarely found: "Garganey breed often in Norfolk, but as they deposit their eggs in the most inaccessible reed bushes, their nests are never discovered, although the young birds, yet unable to fly, are often seen. They usually appear on the broads in March, and those which do not intend to breed here depart about the end of April. July 24th, 1827, I was at Hickling, and went at sun-down for the flight; shot four Garganey, three of which were young birds."

THE TEAL (*Anas crecca*, Linn.) is more abundant with us in November perhaps than any month, as many seem to migrate further south in great extremity of weather. Being one of the ducks which prefer fresh water, is often found on our brooks and smaller streams, and goes further inland to breed than other wild-fowl,

the Mallard excepted. I have seen young Teal on Sculthorpe moor, near Fakenham; also on Old Buckenham fen, near Attleburgh. When it breeds in Norfolk, does not appear so prolific as it is reported to be in higher latitudes; the young in number do not here often exceed eight. Hearne, in his *Journey from Hudson's Bay to the Northern Ocean*, speaks of broods of sixteen and seventeen as usual. In the summer of 1842, a Teal was observed in Ranworth decoy with twelve young ones, which is far the most numerous brood I ever knew of. Is taken every year in great numbers in our decoys; in that at Winterton in particular, where more than two hundred have been caught at once in a single pipe. Although it congregates in immense numbers in decoys, it does not flight in such large flocks as many other ducks, from twenty to twenty-five Teal being a considerable number. I have once known of a flock of sixty, but this is a very singular occurrence.

I wonder that this beautiful little fowl has not been more frequently domesticated; it would fill the same situation on the duck pond which the bantam does in the poultry yard. Its estimation for the table would be a strong recommendation. Was not formerly so highly esteemed; the Northumberland *Household-book*, 1512, says that Teylles are not to be bought if other fowl can be procured. Has always been common in Norfolk; Sir T. Browne especially mentions the abundance of Teylles in his time.

Another fowl, the TUFTED DUCK (*Anas fuligula*)—Provincial, "Black Poker"—has never been *proved* to breed in Norfolk. Many years ago, as that practical ornithologist, the late Mr. Girdlestone, was passing up a narrow passage amidst a wilderness of reeds in one of the broads, an old duck of this species, and three young

ones, passed close by the boat. At least, I mention what was the impression of my friend and of the fen-man who was with him in the boat; and I believe it almost impossible that they could *both* have been mistaken. Pen-nant, in one of his tours, mentions seeing a small flock of these birds in the East Fen, near Spalding in Lincolnshire, in the beginning of July—a strong proof that formerly they sometimes remained here all the year. This fowl, the Tufted Duck, in hard weather follows the course of the rivers in its evening flight, until it has occasionally come quite into the heart of Norwich, and been surprised by daylight.

THE GOLDEN EYE (*A. Clangula*) has never been fairly discovered to breed here; but having at one time the fishing of Horsey mere in this county, I made memoranda of two Golden Eyes which kept constantly together, long after all other wild-fowl had departed. The last time I saw them together was May 12th; on the 26th I observed the drake just in the same part of the water, swimming alone. I took great pains to find the nest, which I think must have existed, but could not. The Golden Eye is peculiar in its choice of a nesting place, (see Mr. Dann's information to Mr. Yarrell.) It prefers a tree to breed in. In Lapland they place boxes in trees near the river, and then take the eggs as soon as laid. I did not know of this at the time I was looking in the marsh for the nest I supposed to be there.

I have been particular on this point, as, in this district, no part of ornithology demands more attention than the nests of water birds. Many marshes, which are regularly traversed, by means of boats and the ditches cut, in autumn and winter, are in summer pathless wilds of water, sedge, and reed:—"We can't get about there till the marshes are mown," is a phrase familiar to all who know

the Norfolk broads. Even the heron sometimes nests in these situations, and the eggs are unmolested, as no one can reach them.

When we consider that new species are continually discovered amongst us—when we know what observation every year brings to light—there is just room for hope that the increased ardour with which natural history is now followed, will show *some* cases in which birds, now not suspected of it, occasionally nest in the Norfolk fens.

There can be no greater proof of how rich a mine of undiscovered material remains, than the fact afforded by British swans. Until lately, the Wild Swan, Elk or Hooper, and the Tame or Mute Swan, were the only English known species; now within the last fifteen years, it has been found that a species, somewhat smaller, and differing in several peculiarities, called BEWICK'S SWAN, is nearly as common with us as the hooper; and within the last two or three years, another fine species of swan has been added to the list—the POLISH SWAN. Now if birds of this magnitude passed amongst us so long unnoticed and undistinguished, what stimulus does this give to every one willing to look closely into natural history with the hope of gaining original information! Perhaps I should say that, among others, there were two causes that rendered the study of many of our water birds intricate until lately—the great difference of summer and winter plumage in many of the waders was not rightly understood; take the knot, for instance, in summer garb and in winter,—no wonder that for very many years, and by many different naturalists, these were made different species; and, secondly, the ignorance which prevailed as to the double moult, and change of plumage which takes place yearly in many of the duck.

tribe, being complete in some and only a partial variation in other species. There is also to be taken into account another fact, that some water birds—sandpipers of various kinds, gulls and terns, and many others—suddenly desert their usual haunts in the end of spring, and hurry away to breed elsewhere. This happens in the stint or ox-bird of our beach,—some breed as far inland as the warrens about Swaffham and Thetford; as also the ring dottrel. I have found the stint breeding thirty miles from the sea, on the top of the Highland Grampians. The Green Sandpiper is a remarkable instance of this; it tarries at almost all seasons on a small stream, where I often find it, but seldom breeds there. It appears to hurry back again directly, losing no time when the young can fly. I have more than once found them return in parties of six—the old birds and four young.

I have already mentioned those kinds of wild-fowl which are most frequent, but severe winters bring us specimens of many of the rarer kinds.

Both the EIDER DUCK (*A. mollissima*) and the KING DUCK (*A. spectabilis*) have been shot upon this coast, in one or two instances.

THE NYROCA DUCK or WHITE EYE (*A. ferruginea*) has been found several times; one was shot on Surlingham broad many years back. I saw this bird alive lately in the gardens at Mr. Gurney's seat at Keswick, probably taken upon his decoy at Hempstead; it has in one instance been taken in Ranworth decoy.

That curious and rare species, the RED-CRESTED WHISTLING DUCK (*Fuligula rufina*) has occurred several times. Mr. Gurney has one killed at Surlingham, and I saw a very fine specimen the other day, sent to be preserved, from Horsey.

The glory of the Norwich Museum, however, amongst

water-fowl, is the WESTERN DUCK (*Anas Stelleri*), the valuable present of Mr. Steward, and unique in England. It was shot at Caistor.

THE VELVET DUCK (*A. fusca*) is found in some number occasionally. These northern visitants come amongst us in very unequal numbers. In the winter of 1829-30, upwards of twenty specimens came into the hands of a bird preserver in Norwich: the next year he received only one, shot by Captain Petre on Hickling water, and preserved in the collection of the Rev. C. Penrice. Their scarcity is probably more in appearance than reality; they, like the scoters, keep at sea whenever possible, and nothing but most tempestuous weather will bring them to the inland waters, where they are exposed to the gun of the fowler. In 1833 several specimens occurred in Norfolk as early as November. In the winter of 1838 one was killed as far inland as Cossey above Norwich.

THE SCOTER (*A. nigra*) appears upon the coast every winter. I once observed one of these last as high upon our river as Thorpe. It very seldom quits the ocean.

Very severe weather brings a few of the LONG-TAILED DUCKS (*Harelda glacialis*); but their nature appears so hardy that they often remain the whole winter in more northern latitudes.

THE GADWALL (*A. strepera*, Linn.) is scarce in Norfolk. I received a fine male specimen in January 1832 from Sutton. The man who shot it, although for many years a practical wild-fowl shot, did not know what bird it was, in fact, had never seen one before. A poulterer and bird preserver in Norwich, to whom I sent it to be set up, had not received a specimen during that season; but added that he generally received one or two during the winter. The fen-man who sent me the above specimen, told me that he was attracted to the part of the water

where the fowl was, by its loud and singular call. It is generally to be seen in the Norwich market once or twice in the winter. Three were taken in company with common ducks in Ranworth decoy in the winter of 1841.

THE PINTAIL (*A. acuta*) is generally shot or taken in decoys every season. This appears a bird of singular habits. In a decoy, sometimes, a Pintail may be observed to leave his own species, and associate entirely with wigeon. In Lord Derby's menagerie, the Pintail paired with the wigeon by preference, there being other Pintails in the pond. Both the Gadwall and the Pintail are abundant in Holland, the latter especially.

That beautiful bird, the HARLEQUIN DUCK (*A. histriónica*), has occurred in one or two instances—once at Yarmouth.

We owe to Mr. Yarrell the complete verification of a new species amongst us, hitherto thought American—the BUFFEL-HEADED DUCK (*Clangula albeola*.) This bird and immature Golden Eyes were confounded and described under the name "Morillon," many naturalists denying any distinction. I have a letter, however, from Mr. Girdlestone, which shows that he had very nearly arrived at a right conclusion long before. He points out to me in that letter, the great difference of position in nostril, which Bewick speaks of, and formation of bill, and adds that the bird is known to the Yarmouth gunners as the "Little Rattle-wing," and the Golden Eye is called the "Rattle-wing;" that it is the hardiest species of fowl known on the coast, remaining at sea when all others are driven southward by stress of weather. My friend's letter was written in 1828; and had it not been for his untimely death, I think he would have persevered until he had established the new species. Mr. Miller of Yarmouth has a very good specimen of the Buffel-head. Both that

bird and the Golden Eye are, comparatively speaking, very rare in complete plumage, and probably are very slow in attaining their adult garb. Colonel Hawker, whose authority on all wild-fowl must be reckoned first-rate, seems to have an idea of the separation of this last species; he speaks of the Golden Eye and also of the Little Morillon, as he calls it,—separating the two birds.

With regard to Wild Geese of different species, they are not very abundant on the Yarmouth side of the county. Enormous flocks of the BEAU GOOSE (*Anas segetum*) visit the western parts of Norfolk every autumn. With these are sometimes a good many of the WHITE-FRONTED GOOSE (*A. albifrons*); and also a newly-discovered species, the PINK-FOOTED GOOSE (*A. phænicopus*), which is probably more common in England than we are aware of. One of the very first specimens recognised as a new species in England, was shot at Holkham by the present Lord Leicester. The original stock of our domestic Goose—the GREY-LAG or GREY-LEGGED GOOSE (*A. palustris*)—is now very rare in Britain. Mr. Lombe told me that years elapsed before he could procure a specimen. Mr. Daniell speaks of it as still breeding occasionally in the Cambridgeshire fens at the end of the last century.

THE BRENT GOOSE (*A. Brenta*) is shot on Breedon and elsewhere, but never appears in the great flocks which are seen on the Essex and southern coasts; and the BERNACLE (*A. bernicla*) is found sometimes. That rarest of species, the RED-BREASTED GOOSE (*A. ruficollis*) has once been found, and unluckily was eaten, in ignorance of its value. In two or three instances I have known the EGYPTIAN GOOSE (*A. Egyptiaca*) occur in such a manner, that there could be no doubt of the specimens being really wild; in general, it is merely a domesticated

bird. A very sharp look out should be kept for the well-known American species, the CANADA or CRAVAT Goose (*A. Canadensis*), as there is no doubt that this bird often occurs in England in a state completely wild. Mr. Jenyns mentions large flocks as occasionally seen in the Cambridgeshire fens.

The Divers and Mergansers are of course merely driven here by stress of weather, and their numbers depend upon the severity of the season. I have known the GREAT NORTHERN DIVER (*C. Glacialis*) as far inland as Lord Albemarle's lake at Quiddenham. The BLACK-THROATED DIVER (*C. arcticus*) is found sometimes. Mr. Penrice has a pair, shot in the Norwich river, in capital plumage. And a third species, the RED-THROATED (*C. septentrionalis*) is not very uncommon in its immature state (*C. stellatus*.)

THE GOOSANDER (*Mergus merganser*) in its imperfect garb of Dun-diver, is found on our rivers in severe weather, but is rare in perfect plumage. I have known the RED-BREADED MERGANSER (*M. serrator*) killed very near this city; this was near Surlingham, and I was present when it was shot by one of the sons of Parker, who kept the ferry house. Upon shaking the bird, five roach dropped from its throat, large enough to be used as bait for pike; they seemed all to have been taken in the space of a few minutes; all their brightness remained on the scales. A specimen of a rarer kind, the HOODED MERGANSER (*M. cucullatus*), occurred at Yarmouth in 1829. The SMEW (*M. albellus*) in adult plumage is very uncommon; a very capital specimen was shot at Horsey lately. In immature plumage it is more frequent.

With regard to the Terns or Sea Swallows, I have already mentioned one species, the Black Tern, as having been formerly very abundant. It breeds no longer on the Yarmouth side of the county. I have been lately

informed that it breeds in some numbers on our western coast; but Mr. Salmon, whose authority as an oologist is very high, expressly told me that he could not obtain eggs any where in Norfolk; that the nearest point where he found it breeding was Crowland wash, in Lincolnshire. I have found the nests of the LESSER TERN (*Sterna minuta*), and of one larger species, formerly, upon an island in Hickling broad. They used also at that time to breed at Horsey. Whether this last species was what has been called the "Common Tern," I should not be able to say; for formerly two other species—the ROSEATE TERN (*S. Dougalli*) and the SANDWICH TERN (*S. Boysii*)—were confounded with what was called the Common Tern. They have proved the most abundant in some localities. The GULL-BILLED (*S. Anglica*) and the ARCTIC TERN (*S. Arctica*) have both occurred in Norfolk. That very large species, the CASPIAN TERN (*S. Caspia*) has been killed in several instances upon this coast. The smallest species, the LESSER TERNS (*Sterna minuta*) are very engaging little birds: in the summer time they will fly backward and forward over a boat moored for angling. I have often been attended by them at Hickling and Horsey. They approach within a very few yards, and are highly delighted with a very small fish—on one or two occasions, when I had minnows with me, they came close to the boat to take them. All these birds are now with us hardly to be considered more than visitants; their nesting places have been broken up by the incursions of man.

The same may be said of Gulls, with the exception of one species, the BLACK-HEADED GULL (*L. Ridibundus*) which breeds in large numbers at Scoulton mere, near Hingham. A small colony took possession formerly of the margin of Rollesby broad, but I do not know whether

they were suffered to remain unmolested. I went lately to visit the gullery at Scoulton. The swampy island upon which they breed occupies a great portion of the mere, and the Gulls are indeed in myriads upon it. The worthy proprietor does not suffer them to be unfairly molested. A portion of the eggs is always taken; and their numbers may be judged of, from the fact that an average season produces more than 30,000 eggs—five years back, the keeper said, they took 44,000. Parts of their abode are so swampy, that no one can walk there to gather eggs, which of course tends to the maintenance of their numbers. Now and then a year of jubilee is given, and no eggs taken; this was done lately at the instance of the neighbouring farmers, who justly value the services of these birds in the destruction of grubs, &c. I was struck with the quickness and regularity with which they settled again upon their nests, as soon as our boat passed on—there appeared no confusion, though the birds formed a dense canopy when flying. The LESSER BLACK-BACKED GULL (*L. argentatus*) and the HERRING GULL (*L. fuscus*) are perhaps the most common of the larger species here. That scarce bird, the LITTLE GULL (*L. minutus*) has been found several times within the last three or four years. The GLAUCOUS GULL (*L. Glaucus*) occurs sometimes, generally in young plumage; and also different species of Skua Gull—the GREAT SKUA (*L. Catarractes*), the POMARINE SKUA (*L. pomarinus*), and RICHARDSON'S SKUA (*L. parasiticus*)—but, in a great majority of instances, in the plumage of the first year. Probably there are the same reasons for the migration of these younger birds, which I noticed before in speaking of eagles and hawks—the old ones drive them away. Indeed, in activity and ferocity, these gulls are not unlike what are called *rapacious* birds. The Great Skua is carefully preserved in

one or two Scottish islands, as, when nesting, it attacks and drives away the eagles, which are there much dreaded on account of the lambs.

That curious bird, the SOLAN GOOSE or GANNET (*Pelecanus Bassanus*) may be seen now and then passing along our coast; not more, however, than two or three in company, allured probably by the migrations of fish—herrings and sprats, for instance; but a careless observer is apt to mistake the bird for a large gull.

THE CORMORANT (*P. carbo*) is frequent with us, and deserves particular notice in some respects. This bird has been, I think, libelled by all authors, from Milton downwards. It is of voracious appetite, and has an unpleasant odour of fish; but as to intelligence and docility, it is foremost amongst birds. (See Montagu's account in his *Ornithological Dictionary*, of the perfect docility of an old Cormorant, which was brought to him when just taken, and judge how high a station in the scale of sagacity this bird appears to occupy.) Cormorants have in some seasons nested in the trees around Fritton decoy in some number; in other years there has not been one nest. These woods used to be, perhaps are, their favourite resort during the time of low water upon Breedon; and in some mysterious manner, they and other species of birds appear to be at once aware when they should commence a search for food. When the tide begins to flow is the time for the Cormorant, and he comes from the wood where he has rested, although miles distant. Mr. Selby observes justly the same power of discrimination in the Common Curlew (*Scolopax arquata*); low water is his season of abundance, and from his distant abode in the marsh he seems to know by instinct the precise time when the ebbing tide has left the mud bare. The smaller species of Cormorant, the SHAG (*P. graculus*), is very uncommon here.

The different species of Auk and Guillemott, which in many parts of Britain come under the general term of "Rock Birds," only appear here occasionally, and generally after stormy weather. Walking along the beach at Yarmouth after a tempestuous night, you may generally observe some water dog exercising his prowess among the breakers, in endeavouring to capture one of these birds. I believe, however, that a few of the common species of Rock Bird breed in Hunstanton cliff, on our western coast here; but they are generally only storm-driven or disabled when they visit us on this side. The COMMON STORMY PETREL (*Procellaria pelagica*) occurs, and is sometimes frequent in autumn; and Mr. Girdlestone had a Yarmouth killed specimen of LEACH'S PETREL (*P. Leachii*.) A still rarer species, WILSON'S PETREL (*P. Wilsonii*) has once occurred in the county.

With regard to these observations on Water Birds, it must be remembered that they have reference rather to the region of the broads—the Yarmouth side of Norfolk. With the western side of the county I am not so conversant; but in one or two instances I have heard of birds as breeding there still, which I could not detect in the district with which I am better acquainted.

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#### RIVER FISH.

IN the present day, when all articles of food are dear and increasing in price, perhaps it would be wise to rely more than we do upon the neglected inhabitants of our fresh waters. The *Quarterly Review* has lately put forth a strong article upon this subject, and a little consideration

will convince any one, that fresh-water fish might with care, as to continual supply, be made of far greater utility than they are at present amongst us. On many parts of the continent a river seems to be regarded as a cornucopia—every one lacking dinner looks therein for it, and with great success. In that spot of classic memories, Vacluse, where the fountain gushing from the rock becomes at once a river, all the peasantry appeared to rely upon its waters for food; here was seen one man groping in the bank for crawfish—here another taking up his eel line; children were everywhere busily employed in catching minnows for eel bait. On going into a cottage and asking for something to eat, the good woman explained that she had nothing, but called to her husband who was digging close by. He went down to the stream, walked in, lifted up a net somewhat resembling an English bow-net, found nothing; waded down stream about ten yards, took up another of these engines, and brought back three moderate sized trout, which in about twenty minutes were smoking on the table. In spite of this universal demand, fish were plentiful; the fly-fisher had abundant sport, and universal civility from the very people whose storehouse he was thus rifling.

It is probable that the indifference amongst us to fresh-water fish partly arises from our ignorance of the best mode of cooking some species. Bream, which is the most despised kind here, is, by the Dutch mode of cookery, made really savoury meat. Just at this period, when we have a railroad completed through the centre of our fen district, the thought naturally occurs, how far this may alter the demand for, and consequently the supply of, fish. A pleasing little work, recently published by the Herr Bocciaus, proves clearly what certain and considerable profit may be made by pools, properly stocked and

well managed; he shows by figures that a few acres are made to produce a large rental. In the district of which these pages treat, the fishing of fifty acres of water, stored with pike, perch, tench, and eels, has been given to one man, in lieu of parochial relief to his family, and the individual did not appear to consider himself favoured by the arrangement.

Another point to be considered, is the great irregularity in the price of fish in different places. Pike have indeed for years maintained a steady though not a high price in this county; but perch are often a drug in the market, commanding no price whatever, yet, from inquiry in London fish shops, few are more costly in the metropolis than large perch. Were this known, and the demand made steady, many of our waters could easily furnish the supply required. Indeed, the very abundance of fresh-water fish in Norfolk, is the cause of the comparative indifference with which they are regarded—what is very plentiful, is seldom very valuable on the spot where first produced. The article in the *Quarterly* before alluded to, speaks of skate being often flung aside as soon as caught in the west of England, when the neighbouring poor are in want of food: bushels of roach, bream, and rud are here left in the same manner, because nobody will eat them.

They manage these things with greater discretion in France. When fishing some years ago in Normandy, on a capital stream, a "great logger-headed chub" used now and then to make his appearance amongst the trout, which intruder on my fly I was wont immediately to consign again to his element. Having just landed a large one, and pushed him from the bank into the water, I heard a hurried exclamation from a female voice behind me, of which nothing was distinct but the perpetual "Mon

Dieu." On inquiry, I found the poor woman perfectly horror struck at my thus flinging pearls away; I thought she was going to weep, as she explained, that had she but the charming fish which Monsieur had just dismissed so unceremoniously, she would have made of it "quelque chose superbe, magnifique." To comfort her, I promised that should any more visit me, they should be preserved, and she pointed out that I must pass her cottage on my road homewards. In the evening I left three there, and on the following day was as usual on the river bank, when I heard the same voice, and received a most hearty invitation to dine off my own chub. As I had breakfasted early and was sharp set, this was by no means disagreeable; besides, I was curious to know what kind of viand her cookery would make of this fish. It was as she had promised, very good; the scales and bones were absent, the watery taste was all gone, the flesh was firm and sweet in flavour, and altogether it might be regarded as a real victory achieved by the *cuisinière* over stubborn materials. I have mentioned this anecdote, to show what a little pains in cooking will do for even chub, the coarsest of fish. The rud, which is most plentiful upon the broads, and grows to a respectable size—a pound and half and two pounds commonly—is probably quite as good a fish for the table as the carp, were some care bestowed upon its preparation.

The chief use made of the coarser fish in the district now spoken of, is as bait for lobsters and crabs. For this purpose, carts are sent from the coast to Barton and other broads, and some years back the price of bream, the chief commodity thus dealt in, was half-a-crown a bushel: two men, with a turning net, have sometimes taken thirty or forty bushels a day. Large pike are almost always captured by this operation, as they accompany

the shoals of bream; but at the season of crab-catching (the height of summer) pike are, comparatively speaking, of little value, and are turned back again.

As I have before said, there are still to be found among the broads, men who almost entirely subsist by fishing and shooting. The apparatus they deem necessary is not very complex; any one would think himself well off for stock in trade if endowed as follows: a turning net one hundred and twenty yards long, ten feet deep; two bushing, commonly called buskin nets, thirty yards each; a smaller and finer ditto, for cuts and dykes, ten yards;\* two fish trunks, a gunning boat, and another craft, larger and broader built, with a well in the bow; a very large landing net, with a shaft six or seven feet in length. Bow nets, for a reason to be noticed when tench are spoken of, are no longer so generally used. Thus appointed, a man will keep himself and family well, many months in the year; indeed, taking gunning and reed-cutting into account, all the year.

Roach and bream go off to the coast for bait; tench, pike, eels, and perch move into the Norwich market, where also some few of the inferior fish find their way from the nearest broads, and are retailed to the poor at a cheap rate. The great eel fishery, however, is quite independent of the broads, and takes place chiefly during the autumnal migration of that fish.

Besides their usual constant inhabitants, various occasional visitants at certain seasons run up the rivers of this county. The SMELT (*Salmo eperlanus*, Linn.) regularly

\* This bushing net is about six feet deep, large in the mesh, as large as a warrener's rabbit net, but made of finer twine; it is slightly leaded and corked, and is placed like a wall along the edge of a reed bush, which is then beaten with long poles to drive out whatever fish may be lurking therein.

comes up in spring to spawn, and stops not till compelled by some insurmountable barrier. In Norwich, the pool at the New Mills is the rendezvous for these fish, which are there taken of the largest size. A large casting net is employed in the capture; and perhaps the Norwich "smelters," as they are called, excel all England in the management of this particular net. Their profits now-a-days are much curtailed, although the earlier smelts are sold in the market for five and six shillings a score. Formerly, twenty-five and even thirty score have been taken by one net in the course of a night. March is the time at which this fishery begins, which lasts until the middle or end of April, and a smelter may be deemed the personification of patience; hour after hour does he persevere, moored exactly in the same spot, with a torch attached to the side of his broad flat-bottomed boat—for this is a nocturnal occupation—in flinging his immense casting net, dropping the near side of it at each throw within three inches of the torch. One fortunate cast, if smelts sell well, may recompense him for hours of fatigue, wet, and cold; and he waits, like the losing gambler, for the lucky throw which is to brighten his fortunes. The smelts taken are kept alive, and a tank full of these beautiful fish is a very pretty sight. Besides these, a few Gudgeons are taken, and a good many Lamperns (*Petromyzon fluviatilis*.) These last are all sold to the eel-fishers as bait. It is a curious fact, that other fish greatly forsake the higher part of the river whilst it is occupied by the smelts spawning. Roach and dace are at that time very scarce, although plentiful enough before the smelts arrive; they then remove further down the river for a time, and, as they say here, "the fish are down because the smelts are up." I have known it at that time difficult to provide a few coarse fish for the sustenance of a tame heron.

A few Sea Trout are still found every autumn in the Yare; but these fish, although common at the harbour's mouth at Gorleston, do not come much into the river, nor, when found there, are they of large size. The Bure and the Waveney are also visited occasionally by these fish. Just below St. Olave's bridge, where the water is deep and rapid, has always been a favourite resort for them; and I know one instance of a Sea Trout being captured in the Ant, near Wayford bridge. This fish must have passed over Barton broad to arrive there.

A Sea Trout, taken lately at the New Mills in this city, and preserved in the Museum, is evidently the BULL TROUT, the *Salmo Eriax* of Mr. Yarrell's "British Fishes;" but the SALMON TROUT (*Salmo Trutta*) also occurs occasionally; the majority of those taken at the harbour's mouth at Gorleston are of this latter species. The COMMON TROUT (*Salmo fario*) is found in small numbers in the higher parts of the Bure and the Yare, and some of their tributaries. Is not found in the Waveney. Formerly, however, there is reason to suppose that the Salmonidæ were more common in Norfolk. I have by me an old painting, merely a rough daub, which came from a cottage in the village of Cossey. It professes to be the portrait of a fish, taken in the parish aforesaid some sixty years ago, and, although rude, is in length and breadth probably correct. It represents a regular kelt, or salmon, which has been detained in fresh water, of the weight of fourteen or sixteen pounds. In the L'Estrange *Household-book*, mention is made of payment to Lambard, the miller at Swanton mills, (by water, some twenty miles above Norwich), for a fresh Salmon brought by him. This is in the time of Henry VIII. Salmon Trout appear by the same authority to have then been

abundant. Sir T. Browne mentions fifteen Salmon taken in the same winter at Trowse mill.

LAMPREYS (*Petromyzon marinus*, Linn.) are sometimes found near Norwich ; but a prejudice prevents their being eaten, unless by a few of the initiated. These delicacies, when taken, are sometimes beaten to death, kicked about, and cut in pieces, as if, in lieu of causing an epicure's heart to leap within him, they were altogether nauseous and disgusting. The Lampreys are chiefly found on the gravelly shoals below Trowse bridge, near Norwich, in the months of May and June. In former days people were better acquainted with their real merits. Sir T. Browne mentions them as plentiful and highly prized, whether "collared or in pyes."

THE LAMPERN (*Petromyzon fluviatilis*, Linn.) is abundant in the Yare in April and May, when they run up to spawn, and may be seen collected in close bodies of thirty or forty upon the gravel shoals. The only use to which it is here put is as a bait for eels, for which purpose it is first-rate ; cut into pieces of about an inch in length, it is so tough upon the hook, as generally to baffle any attempt in the eel to suck or nibble it off. These bait also will last good for two or three nights' trial, whilst a roach or other small fish is water-sopped.

THE STURGEON (*Acipenser Sturio*, Linn.) has occasionally passed Breedon water and explored the Waveney or the Yare. A portrait of one taken very high up the Waveney, has the following legend on the margin : "This Sturgeon was taken upon the sholes above Beccles bridge, on the 7th of April, 1753, by Thomas Hawkes, Jun. It weighed 11 stone 2 pounds."

THE FLOUNDER, provincially termed "Butt," (*Platessa flesus*) is fished for with eagerness on Breedon, to be used

as bait for the lobster fishery. It runs far up our rivers. I took one some years ago, upon the lesser broad at Hoveton, in a bow-net, and have known it occur on Ranworth broad.

One instance has occurred of the GARFISH (*Esox belone*) being taken within five miles of Norwich.

THE ALICE SHAD (*Alosa communis*, Cuvier.) A pair of these fish, male and female, were taken close by the New Mills in Norwich, during 1840.

THE BURBOT, or EEL POUT (*Lota vulgaris*) is taken in small numbers in the Yare, the Bure, and I believe the Waveney—principally high up the Yare near Norwich; but does not arrive at the size or exhibit the bright colours which it wears in the Swiss lakes, or even in the Trent in England. Seems here to prefer our slow running rivers to the broads; generally taken by hooks set for eels, and seldom exceeds a pound and a half in weight in the Yare. As is justly observed by Mr. Yarrell, this is a most superior fish for the table, and worthy far more care and attention than it has received. As just mentioned, it is not common in the district of the broads, but is far more abundant in the Thet, which flows by Larlingford and Thetford: pailsful have been taken from Harling mill-pool, when the water has been let off that the brick-work might be repaired. It penetrates almost to the sources of rivers. I have known many caught, and some two or three pounds in weight, from the small streams which unite to form the Thet, in parishes adjacent to the place where this is written. Richly does it deserve the name of "Coney Fish," which it has from its habit of skulking in rat-holes and corners under the bank. I have stood by whilst a skilful hand was groping under the banks of a small brook for cray fish; and more than once, with a puzzled air, the fisherman said, "Here is a Pout, Sir;

but he has got so far into a hole, I can't fasten upon him." Is very tenacious of life, and excessively voracious; will fatten well in stews, and eat fish chopped in pieces, frogs, flesh, or almost anything. When at Lucerne, I was looking at one of the tanks for fish, divided into compartments, and supplied with fresh water from a fountain in the centre, which are common in inn yards in Switzerland. In one division were small trout, in another eels, and in a third burbots. Whilst I was considering these last, the scullion suddenly arrived with a plateful of the intestines of fowls, which he threw at once to the Eel Pouts. I certainly waited a few minutes, and did not see them begin their meal; but on visiting them the next morning, all thus bestowed had disappeared. They grow in Switzerland to the weight of six or seven pounds, and are deservedly in the highest estimation. At Yarmouth, the term "Eel Pout" is given to an entirely different species, the *Blennius viviparus*, (see Mr. Paget's *Sketch*.)

## ANGLING, &amp;c.

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Ille autem scopulis subjectas pronus in nudas,  
 Inclinat lentæ convexa cacumina virgæ,  
 Indutos escis jaciens lethalibus hamos.  
 Quos ignara doli postquam vaga turba natantum  
 Rictibus invasit, patulæq: per intima fauces  
 Sera occultati, senserunt vulnera ferri.  
 Dum trepidant, subit indicium; crispoq: tremori  
 Vibrantis setæ, nutans consentit arundo.

AUSONI *Mosella.*

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ALTHOUGH Norfolk cannot offer to the angler the inducements of Derbyshire, Wales, or Scotland—though she has neither romantic scenery nor rivers swarming with trout to allure him—yet she is not destitute of temptations. Many a London disciple of Walton, accustomed to the Lea or Putney bridge, would here fancy himself in Elysium. Bream, roach, and rud, in crowds and of large size, would be ready to receive his attentions. Coarse fish are not here estimated by the pound or the brace, but by the stone weight and bushel measure. From five to ten stone of bream and roach are often taken by two or three anglers; and there is always that sweet uncertainty—that prize as it were yet in the wheel of fortune—the next time the float sinks, it may be a gigantic perch! Of course, excellence of tackle, and attention to ground, bait, well-cleansed worms, &c., would bring a great increase of sport. The rude manner in which angling is often carried on here, is strange: you see four ash poles

fourteen or fifteen feet in length, with a line like whip-cord, and a small bung as a float; these poles, sharpened at the larger end, are stuck into the river bank, five or six yards apart, and the professor of the gentle art, with a pipe in his mouth and his hands in his pockets, keeps eyeing the bungs, as they bob in a row like coal barges at anchor. Should a bite be signified, the pole affected is clutched convulsively, and the victim jerked forth sometimes over the head of the operator. The sight calls to mind the piscatory giant of old—

“His angling rod was made of sturdy oak,  
His line a cable which in storms ne’er broke;  
His hook was baited with a dragon’s tail,  
He sat upon a rock, and bobb’d for whale.”

Yet, with an apparatus precisely as described, very many perch are taken in a day, and often of two or three pounds weight.

In this county, it is remarkable how large perch associate together, not admitting any smaller ones into their community; nine brace having been taken in the same afternoon by angling, without moving the boat from its first situation, and not a fish of the eighteen under two pounds in weight. One sweep of a long net made at the bridge over the causeway at Rollesby broad, produced nearly thirty brace of this fish, and not a small one among them; and were pains taken to feed them to particular spots, the success in angling would no doubt be wonderfully increased.

Bream may often be found in the Norfolk rivers, as described in the halcyon days, to the angler, of old Walton, with “their sentinels rolling and tumbling on the top of the water, and the angler may mark their going forth of their deep holes, and returning.” And to those who angle for the sake of sport, and not merely with an eye

to the value of what they catch, fly-fishing for the rudd in hot weather gives no mean amusement.

THE PIKE (*Esox lucius*.) This fish is in Norfolk as principal an object of pursuit to the fisherman as the trout is in many counties. If a fishing party on the broads is talked of, Pike are of course to be attacked. The fishermen who hire waters as a livelihood, mainly rely on the capture of this fish for their returns. Boys may be seen in the spawning season, busily employed in the mischievous process of snaring all the little worthless Jack they can find. The heron, in Norfolk, gets half his subsistence from the fry of this fish; those which were taken by falcons at Diddlington, had always small Pike in their maws. Yet, in spite of all these enemies, the "mighty Luce or Pike" still flourishes—like Burns' John Barleycorn, the more you persecute him the more he thrives. Mr. Yarrell, in his *British Fishes*, has given some strong instances of success in Norfolk, and such are by no means rare; the memory of any practised fisherman recalls many such days of sport.

On Ranworth broad, upwards of ninety Pike, and many of them of large size, have been taken in a day by trimmers, by two amateur fishermen in the same boat. On Sutton broad, a very circumscribed and shallow pool, in March 1832, with fifty trimmers, twenty-six Pike and a very large perch were taken. Four of these fish were from thirty-three to thirty-six inches in length, and many others weighed from seven to ten pounds.

The largest fish, to the size of which I can positively speak, was taken a few years back from a small pool near South Walsham broad, and weighed thirty-six pounds. Four fish, weighing collectively one hundred pounds, have been netted in a day upon the same broad; yet some of the old fishermen protest that the Pike of the present day

are not to be compared to the giants of the olden time, and they refer to a period early in the present century, when for the last time the sea made a serious inroad over the marum banks, as the season when these Titans perished. As far as observation goes, there is a point in size to which a Pike grows rapidly—good feed and water suitable being provided for him—and after that his growth is comparatively slow.

The largest-framed fish I ever beheld, was found in the reeds on the verge of a broad in the summer of 1822: the water had receded so as to make him prisoner in a place so shallow as not to cover his back fin. Emaciated as he was—for his head was far the largest part about him—he weighed twenty-one pounds, and would in very high condition, I am certain, have reached thirty-five. He was accurately measured before being turned loose, and was forty-three inches in length.

Pike have risen in estimation of late years as a table fish, in the metropolis as well as in Norfolk; and, when we have quicker transit, will probably pay those who take them far better than they do at present.

This fish, from the very ovum, appears to manifest the stern and solitary energies of its nature. In summer, almost every distinct puddle in fens where turf is cut has its tiny tyrant in an infant Pike; here he enacts despotic sovereignty, and lords it over tadpoles and fry, till fate arrives in the shape of a heron, or the first floods of autumn sweep him to the river or the broad, there to batten in plenty—until his time arrives to figure *en masquerade*, crowned with horseradish, his tail in his mouth, and a pudding in his belly.

At one season, however, even these solitary fish appear inclined to be somewhat gregarious. In extreme cold and frost they are found together; but a sheltered situation,

and greater depth, and consequently warmth, of water, is probably more the inducement than society. From twenty to thirty have been thus taken at one turn of a long net, when all the circumjacent water had been tried in vain. In this case, however, parity of size seemed to render it a secure association for all parties—the smallest being above three, and the largest under eight pounds.

In Norfolk, the general mode of taking Pike is by net, or by a trimmer. These trimmers are not with us the neat painted corks which are sold in tackle shops, but a bundle of that species of rush, here provincially called "boulders," of which chair bottoms are made; a mass of these, about fourteen inches in length, and the thickness of a man's arm, is bound together tightly at each extremity, about eight yards of sound string are added in the centre, and with a baited hook, the apparatus is complete. In the capture of large Pike, to have a large bait is of the first importance—a roach or rud of nearly a pound is not too large; from its size it is exempt from the attacks of juvenile Jack. If small fish are used on a water where Pike are abundant, the chances are that a small Pike first meets the trimmer and either swallows or spoils the bait. These minor Jack are very often swallowed in turn by a full-sized Pike; for a Jack of half a pound, or three quarters, is not to be regarded as a mere shift to be used if nothing else can be found, but is, if properly mounted as a bait upon a large hook, the most tempting morsel which you can offer to a large Pike. If, on the contrary, the little Jack has himself swallowed the roach, and is afterwards bolted in his turn, then comes the disappointment of the fisherman; you reach the unwound trimmer—you tow it in—a heavy weight replies to each pull—you draw on—you see the head of the monster—and now he sees you; slowly his head moves from side to

side, as if he were shaking it at the disagreeable dilemma you have placed him in, when, with an air of sulky disappointment, he returns to you, from the *ima penetralia* of his stomach, the Jack first taken, and the next thing you see is the surge caused by his tail, as, at full liberty, he seeks the depths below.

Very great success is sometimes obtained in severe frost on broads, by breaking a hole in the ice, and putting down a baited hook, a plan used in North America for trout and other fish.

Mr. Yarrell, in his *British Fishes*, gives a masterly summary of the evidence that this originally was an imported fish, but it doubtless increased rapidly. Belon, who wrote about 1552, says expressly, "*Angli pingues admodum Lucios habent, et magnos.*"

THE PERCH (*Perca fluviatilis*.) This fish, although still abundant in many places, is far from being so general as it used to be: steam and the consequent disturbance of water have banished it almost entirely from the upper part of the Yare. It formerly was common immediately below Norwich; but it still may be called plentiful in the Bure and Waveney, and in the lower portion of the Yare, between Reedham ferry and Breedon water. Indeed, this fish rather likes than shuns a portion of salt water; the point in Norfolk rivers where the largest are taken with most certainty is, where water begins to turn brackish from the influence of the ocean. Sir T. Browne says, "such as are taken on Breedon in the mixed water, make a dish very dainty, and I think scarce to be bettered in England." In the summer, when the tides are very low, and Breedon water, although regularly affected by ebb and flow, is less salt than usual, very large Perch are taken in the trammel nets set for the capture of the flounder or butt; and in autumn the very finest are taken by angling

with a shrimp, the favourite bait in the lower parts of the Yare and Waveney. St. Olave's bridge upon the latter river has long been celebrated as a station for anglers; and the first prognostic of success is a satisfactory trial with a fine-meshed hand net along the bank: if shrimps are up as high as the bridge, it is generally found that Perch are there also. Several other localities appear to attract this fish, particularly the gravelly shoals near the ruins of St. Bennet's abbey, and the Irstead shoals near Barton broad. Horning ferry, and different positions below Wroxham bridge, are also noted for this fish; and almost every broad has its own particular nook, where Perch are presumed to congregate more than elsewhere. They are often at once attracted by piles driven in and gravel thrown into the water, to make a landing place for wherries; the inducement then appears to be the small fry which come thither to sport on the gravel and among the piles. A friend, angling in the Yare near Breedon water, took a brace in the same afternoon, which, placed together, turned eight pounds and a half. The largest I ever myself saw was taken in a trammel net upon Oulton water. It was late in April; the fish had deposited its spawn, and was quite wasted; it was nineteen inches and a half in length, and, poor as it was, weighed four pounds two ounces.

Although a fish of strong appetites, the Perch does not seem to possess the indiscriminate voracity of the pike; even when inclined to feed, it is sometimes very fastidious in the choice of a bait. A boatful of anglers, with choice worms, have hardly been able to obtain a bite; whilst close by, a party who had brought live gudgeons were enjoying the finest sport; and vice versa, Perch will sometimes entirely refuse a minnow or a gudgeon and take a worm greedily.

It is thought by many fishermen that the occasional incursions of the ocean over its banks, called here, "a breaking in of the salts," to which we were formerly liable, were on the whole favourable to Perch, although destructive to most fresh-water fish; the dykes and small rivers remained brackish for some time, and abounded with a small shrimp (*Pandalus varians*, Leach) now rarely met with, and this is their favourite food. Also the mortality among the bream and roach might cause a greater abundance of general food—worms and such like; for the great evil of the bream is its excessive increase, and its overwhelming better fish by its numbers. In the present day, should the salts visit us, they do so by their legitimate channels, the rivers. Within the last eighteen years, fish in general were killed in the Bure, far above Acle bridge. I heard an eye-witness speak of this, and his expression was, "the water was white with dead bream." On these occasions, the first fish that suffer are the pike, bream, and roach. Tench are nearly exempted by remaining upon the broads, to which now the salts seldom extend; otherwise they perish even before the bream. Perch will bear a strong admixture, a real saline draught; and eels seem to resist the influence altogether.

The price of this fish in the metropolis is very high, and has been so for many years. Mr. Daniell states it at half-a-crown per pound in 1804, and inquiry made at an eminent fish shop within a few years, shows that no decrease has taken place.

THE RUFFE (*Perca cernua*.) This little fish is found in the Norfolk rivers in large shoals. Its dull yellow colour approximates so nearly to the gravel and sand which it delights in, that a shoal is seen very indistinctly, even when the water is clear. Was formerly most abundant in the higher parts of the Yare, and even throughout

the part within the walls of Norwich. Hundreds might be seen upon a summer's day, at the piers of any of the bridges in the city, hunting for small limaces and vermes amongst the vegetation upon the piles, into which weeds they introduced their heads and half their bodies, until a part of the pier appeared thickly studded with their tails. Does not, I think, grow to the size here which it reaches in some rivers—the Cam for instance; it is in Norfolk seldom more than five inches in length. Is of no great estimation as a bait for other fish; the eel will take it when the back fin is removed, but not with much avidity; were it tempting to the eel, it would be constantly used by our fisherman. Gudgeons are very scarce among the broads, and roach, although plentiful, are uncertain and erratic—a large shoal here to-day, may be gone to-morrow. The Ruffe, on the contrary, having chosen his post, keeps it until forced to move by floods or low water, and may be taken in quantities in a casting net whenever needed. Near Norwich, it is always known by its real name of Ruffe; but in parts of the broads is erroneously called “Thumb,” a title which belongs to the bull-head.

THE TENCH (*Tinca vulgaris*.) Formerly the fishermen on the broads relied upon the bow-net, and occasionally the trammel or flew, for all their success with this fish; but a plan has arisen of late years, and is becoming more and more general, which bids fair to supersede the use of these implements. “Tench catching,” as it is justly termed, originated with a family of the name of Hewitt, at Barton, all the members of which were fishermen and gunners. One of them observing the sluggish nature of this fish, attempted to take them with his hands, and often succeeded. The art has spread, and the system is better understood, so that at this time there are in Norfolk

fishermen who, upon *shallow waters*—for in deep nothing can be done thus—prefer their own hands, with a landing net to be used occasionally, to bow-nets or any other engines. The day for this operation cannot be too calm or too hot. During the heats of summer, but especially at the time of spawning, Tench delight in lying near the surface of the water amongst beds of weeds; in such situations they are found in parties, varying from four or five to thirty in number. On the very near approach of a boat they strike away, dispersing in different directions, and then the sport of the tench-catcher begins. With an eye like a hawk, he perceives where some particular fish has stopped in his flight, which is seldom more than a few yards: his guide in this is the bubble which rises generally where the fish stops. Approaching the place as gently as possible in his boat, which must be small, light, and at the same time steady in her bearings, he keeps her steady with his pole, and, lying down with his head over the gunwale and his right arm bared to the shoulder—taking advantage, in his search, of light and shade—he gently with his fingers displaces the weeds, and endeavours to descry the Tench in his retreat. If the fisherman can see part of the fish, so as to determine which way the head lies, the certainty of capture is much increased; if he cannot, immersing his arm, he feels slowly and cautiously about until he touches it, which, if done gently on head or body, is generally disregarded by this sluggish and stupid fish; but if the tail is the part molested, a dash away again is the usual consequence. Should the fisherman succeed in ascertaining the position of the fish, which under favourable circumstances he generally does, he insinuates one hand, which alone is used, under it, just behind the gills, and raises it gently, but yet rapidly, towards the surface of the water. In lifting it

over the boat side, which, it need not be said, should be low, he takes care not to touch the gunwale with his knuckles, as the very slightest jar makes the captive flounce and struggle. On being laid down, the Tench often remains motionless for full a minute, and then begins apparently to perceive the fraud practised upon it. The fisherman then, if he "marked" more than one Tench when the shoal dispersed, proceeds to search for it. If not, he endeavours to start another, by striking his pole against the side or bottom of the boat—several are generally close at hand. The concussion moves other fish, when the same manœuvres are repeated. In this way I have seen fifteen or sixteen good-sized table Tench taken in a short space of time. And in the course of a favourable day one fisherman will easily secure five or six dozen.

Here, it should be observed, that the "run," as it is termed, of a Tench is different to that of a bream or a rud; it is not straight or extended, but short, varying, and devious, something like the knight's move at chess: very often the fish halts within five or six yards of the place he started from. The advantages of this plan over bow-nets are great, when requisite adroitness is obtained. In the first place, a good-sized fish is more easily followed and taken than a small one; in the second, the disadvantages of bad neighbourhood are done away with, for, although the marsh-men are generally an honest set, yet bow-nets are sometimes examined before the owner arrives. In Norfolk, Tench are estimated rather by measurement than weight; fourteen to seventeen inches is thought the length of a good table fish; one under twelve is deemed only fit for store. The growth of fish varies greatly in different countries; and I think Boccius, whose recent work on Fish-ponds contains valuable information,

exceeds the mark for England, when he speaks of Tench averaging four pounds and a half, in emptying a piece of water. Four pounds would here be reckoned a *very* large Tench.

The Tench is extremely affected by electrical influences, and fishermen often experience a good deal of loss from thunder-storms when they have many of these fish in trunks. Almost every veteran has some plan of his own for obviating the evil: some say that to sink the trunk deep in the water secures the fish contained in it; others maintain that the top should be level with the water, and covered with reeds and rushes.

This effect upon fish contained in trunks appears to be partial. All the fish in one trunk on a particular broad perish during a thunder-storm, while not one of those contained in another trunk on the same water is injured. In tropical climates, hail and thunder-storms united sometimes depopulate rivers. (See an article in the *Quarterly Review* for January 1822, upon Dobrizhoffer's "History of the Abipones.")

THE BREAM (*Abramis brama*) is found on all the broads in immense shoals. When preparing to spawn, they roll about like miniature porpoises; the water is discoloured by their working—here a nose appears, and there a back fin, whilst at intervals a plunge of affright amongst the multitude shows that large pike are busy. The pike follows in the wake of these shoals—as in Africa the lion hangs upon the outskirts of the countless herds of spring-boks and other antelopes, or as the wolf prowls upon the flank of a disordered and retreating army. It is a positive nuisance from its numbers in many places. If a bow-net is set for tench, Bream crowd in ere they arrive, and exclude them. In perch fishing they consume the angler's best worms, tire his patience, and soil his

fingers. Does not grow to the size in Norfolk which it attains in the Irish lakes, the Trent, Dagenham breach in Essex, and other localities. A Bream of five pounds is here considered a very large one.

THE WHITE BREAM (*Abramis blicca*.) This fish does not appear to collect in large shoals, and affects the company of the roach and the rud more than the bream; indeed, I think on the whole there is more of *Cyprinus* than *Abramis* in this species. Is lively and sportive in the water. I have generally caught it by angling in the cut by which a broad communicates with a river. It appears to like such situations more than the broad itself, particularly when a strong stream is running either in or out of the pool. In the treatise on "Fyshynge with an Angle," published in 1496, mention is made of the "Breme" and the "Bremet"—perhaps the latter was this species.

THE POMERANIAN BREAM (*A. Buggenhagii*.) Since Mr. Yarrell published a Supplement to his work on Fishes, in which he figures and describes one of this species caught upon Dagenham breach, a very fine specimen, upwards of four pounds in weight, has been taken by angling at Cossey, above Norwich; it is preserved in the Norwich Museum. More have since been taken at Dagenham, and I have no doubt that careful investigation would prove that this fish occasionally occurs in the broads.

THE RUD (*Leuciscus erythrophthalmus*.) The Roud, as it is here always pronounced, is very plentiful on the broads, and also far from uncommon in the rivers; but perhaps the chief distinction between this and the roach in their habits, is that, although often in company, the Rud on the whole prefers the broad, and the roach the river. Is very lively and active, rises freely at flies, and

is fond of sporting on the surface ; is most vivid in colour, sometimes nearly rivalling the gold fish. Does not often exceed two pounds, but is commonly met with a pound and a half in weight ; is much better to eat than the roach or bream. I have seen marsh-men select Rud for their own cookery, whilst they carried bream and roach home only for the dogs or the pig—for be it known that a Norfolk water-dog and a marsh pig are both piscivorous animals. Is probably the best fish in stocking new-made waters with bait for pike, by which they are preferred to bream or roach ; they are considered also when small the best bait on the broads for large perch ; in the rivers a gudgeon is preferred.

THE ROACH (*Leuciscus rutilus*) is most abundant in the broads and in all parts of the Norfolk rivers, growing to a large size, two pounds and upwards ; is caught in the rivers in company with bream and rud, but in the spawning season has its peculiarities. The bream always spawn in a broad in preference to a river, if they have choice, and rud do the same ; but Roach generally resort to the river for this purpose, or else, as very often is the case, select an intermediate situation in the main dyke by which broad and river are united. At that time they crowd together along the rushes which fringe the bank in such dense multitudes, that every instant you see small ones raised momentarily half out of the water by the passage of larger Roach. They appear to lose all fear in the overwhelming instinct which prompts them to propagation, and may be scooped out in numbers with a landing-net : if a bow-net is put in, they will crowd in until the centre can contain no more. The Roach, which is now in no estimation, and thought useful only as food for better fish, was probably more valued formerly. According to Blomefield, in 1413, Clement Paston, Esq. and others trespassed

on the ponds belonging to the abbot of St. Bennet's, and took 200 roaches, 200 perch, and 300 eels, which were together valued at 100 shillings, a high price then. Yet in the L'Estrange *Household-book*, which refers to the next century, many notices of fresh-water fish are not to be found: one solitary tench occurs; pike appear in some estimation, but are not often mentioned; eels are noted, and sea-fish, cod and ling, are bought by the hundred, and herrings by the barrel; but nothing is found to corroborate the value of fresh-water fish, as mentioned by Blomefield. Our ancestors appear to have discovered the merits of turbot—one is mentioned as bought at 2s. 4d. whilst ten plaice cost but 3d.

THE DACE (*Leuciscus vulgaris*) is abundant in the higher parts of the rivers, but does not affect the broads, or the nearly stagnant parts of the rivers in the vicinity. Is plentiful in a small stream which divides the parishes of Rockland and Claxton, near Buckenham ferry; but does not appear to quit the brook for the wider waters of the Yare.

THE CHUB (*Leuciscus cephalus*) is totally unknown in the Bure, the Yare, and I believe the Waveney; but of the higher part of this last river I am not sure. Is very large in some Norfolk rivers—the Ouse, the Thet, and the Wissey near Stoke ferry.

THE GUDGEON (*Gobio fluviatilis*) is abundant in the higher parts of the rivers, where it finds streams and gravel shoals; but not, I think, otherwise than of very rare occurrence amongst the broads. I have known a very few taken upon Irstead shoals. In the Yare, I have never been able to trace one lower than Buckenham ferry, although in the neighbourhood of Norwich this fish is very plentiful, and is much sought as a bait for eels and perch.

THE MINNOW (*Leuciscus phoxinus*), like the last species, shuns stagnant waters; is plentiful in the river above Norwich, but does not often occur below the city. Does not in Norfolk reach the size to which it grows in France, in parts of which it is much larger and far more abundant, and, when cunningly dealt with, most excellent for the table. I do not know whether the gay colours frequently worn by this little fish in the summer have reference to sex, as they have in the stickleback. I have had the same Minnows for two years in confinement, but in a semi-domesticated state no change took place—they grow familiar, and on the approach of the owner rise to the surface, looking out for food.

THE COMMON CARP (*Cyprinus Carpio*.) Not common upon the whole in the broads, but growing where it does occur to the very largest size. Most difficult of capture, leaping over nets, or plunging in mud so as to allow a heavy drag-net to pass over it. Mrs. Glasse's receipt for stewing this fish begins with these words—"First catch your Carp." The worthy dame here displays acumen. In our extensive waters, no fish baffle the fisherman so completely as large Carp. Every one has his peculiar tale of disappointment—how he surrounded a shoal of Carp with his turning net, and some sprang over and the rest "mudded;" or how he found them working in a dyke, and placed a trammel net above and below them, so as to cut off retreat both ways, and then dragged the intermediate space with a third net, and got only one of the smallest. I believe that some of our fen-men regard this fish with mysterious awe: his exits and entrances puzzle them—they regard him as something more than a fish, and look upon him as what the Scotch call "No cannie." Carp return to the same place to spawn year after year, and are at that particular season sometimes

caught easily. Perhaps the reason that this fish does not increase more upon the broads, is, that it is checked by the myriads of bream and rud. Our waters certainly suit it: when caught it is in the highest health and vigour. Were the largest upon the Norfolk waters to be produced, they would vie with the brace sent by Mr. Ladbroke to Lord Egremont, which weighed thirty-five pounds. (See Daniell's *Rural Sports*.) Upon Belaugh broad, in particular, there are enormous Carp. The dimensions of one lately taken there are as follow:—Length  $29\frac{1}{4}$  inches; girt 29 inches; weight  $15\frac{1}{2}$  pounds.

CRUCIAN CARP or PRUSSIAN CARP (*Cyprinus gibelio*.) A solitary specimen has twice been observed in the Yare, though in neither case in the stream of the river, but in a cut made for wherries, which was entirely stagnant, and in fact resembled a pond, which probably this fish prefers to even the slowest running water.

THE LOACH (*Cobitis Barbatula*.) Not gregarious, nor abundant, but found in the smaller streams, wherever stones afford it a lurking place. Is a most tempting bait wherever it is found: large pike, high upon the streams, will sometimes seize this trivial morsel, after refusing roach or dace.

THE BULL-HEAD (*Cottus gobio*) is found in the rivers, the smaller streams especially, in small numbers.

THE THREE-SPINED STICKLEBACK (*Gasterosteus trachurus*) is common in the ditches, but never swarming as it does occasionally in Lincolnshire, where it has been used for manure.

THE SHARP-NOSED EEL (*Anguilla acutirostris*.) Mr. Yarrell's just distinction of the Sharp-nosed and Broad-nosed Eels has been long acknowledged amongst the fen-men, any of whom would at once single a Sharp-nose from a Flat-nose, as they are here termed. This is the

most numerous species, although both are abundant; but the greater number of Sharp-noses are taken in nets or by the spear, as it is altogether not so voracious a fish as the next species, the Flat-nose. Does not generally attain a first-rate size in Norfolk, an Eel above six or seven pounds being of rare occurrence; in the fens of Cambridgeshire it has been taken of twenty-five pounds in weight. One specimen, however, has occurred near Norwich of upwards of twenty pounds: it was taken in the beginning of May 1839, and being submitted to the inspection of the Zoological Society, was pronounced a genuine Sharp-nosed Eel. This fish is caught in great numbers by nets stretched across the rivers in autumn, called "Eel sets." In this way tons have been taken at a time, all travelling towards the sea. Many of the Eels, sold in town as Dutch Eels, are taken in this county. Is more regular in its migration than the Broad-nosed Eel, although numbers of this latter species are also taken. Is, according to Mr. Paget, often found in the harbour's mouth at Yarmouth, and even at sea. A mixture of salt water improves this fish for the table; those taken upon Breendon water are prized more than the fresh-water Eels, and the fish abounds there. In winter, numbers of them are sometimes found laid up in the mud by the side of the navigable channel across this water; several stones weight have been speared within the compass of a few yards. At the various mills high on our rivers, and below any large pools, during a fresh of water in autumn, from forty to sixty stone of Eels have been taken in a night.

THE BROAD-NOSED EEL (*Anguilla latirostris*) is as universally dispersed in the broads and rivers as the last, and being more voracious, is oftener taken by a baited hook, but is not thought so good for the table as the

Sharp-nosed Eel. In some of the shallower broads, the fishermen adopt a plan in the capture of this fish very superior to the common system of a long line with hooks at intervals. The fisherman has a bundle of osier wands in his boat about seven feet in length, and at the larger end the thickness of a man's thumb: this end is sharpened, and to each osier, about two feet from the larger end, is fastened about a yard of strong string. A sufficient number of eel hooks, baited with small fish, are placed by his side, and as he floats along he attaches one to the string of an osier, and, looking over the side of the boat, sticks it down wherever he perceives an opening among the weeds on the bottom. Eighty Eels, many very good ones, have been taken from a hundred sticks thus disposed. The advantage is, that each bait being separate and independent, there is no fear of a general entanglement from the struggles of three or four Eels, which is often the case upon a long line studded with hooks. Arderon, a native of Norwich, was the first who observed the power and inclination of the Eel to climb up piles, brick-work, &c. above the level of the water. I have seen Eels making the same attempt to climb into an artificial lake in a park close by the place where I now write. They were unsuccessful in endeavouring to gain the top of the sluice, which was at least six feet from the level of the water; but they tried it again and again, and several times proceeded more than half way.

THE "GRIG," as it is called, occurs near Norwich sometimes; but I have not been able yet to detect the "Snig" of Mr. Yarrell's fishes anywhere in Norfolk.

THE interesting observations before mentioned as lately published by Herr Boccius, upon the subject of ponds and the increase of fresh-water fish therein, do not apply much to our Norfolk pools. In order to command Carp, the power of letting off the water almost entirely is necessary, otherwise the fish can laugh at the fisherman. This cannot be done in the various broads here spoken of, and in consequence, Carp are in Norfolk often rather a torment than a gain to those who endeavour to take them. The excellence of his rules for waters with regular depth of bottom, and with like facility for drainage at will, cannot be disputed. It is to be hoped that a few years will throw additional light on the means of transporting the impregnated ova of various fish from place to place. In the case of the Salmon, complete success has attended the recent attempts to propagate the fish in confinement in wicker cages; and the stream which in Norfolk now possesses the most Trout, was, sixty years ago, a brook affording only dace and roach, and was stocked by twenty brace procured from a distance. The Chinese have long been wont to bring down the ova of the Gold Fish from the lakes in the interior where they breed, and to vivify them in their cities where purchasers are near at hand.

Different continental rivers afford varieties, valuable from size and delicacy of flavour, which with care and attention might be naturalized in this county. There does not appear any reason why we should not possess the

Weil or Silurus Glanis—that monster of the Swiss lakes : water room and abundance of aliment we could certainly promise. The Pike Perch (*Lucioperca Sandra*), which inhabits many of the German and Austrian lakes and rivers, growing to the weight of twenty pounds, and infinitely excelling either pike or perch for the table, might be introduced here with management.\* To monastic bodies, and the importance they annexed to a good supply of fresh-water fish, we owe the first introduction of the Grayling into Britain ; and the two fish here mentioned are hardier and easier of transport.

An accession of fishes of prey is what would be desirable upon our Norfolk waters ; many of them are literally overstocked with coarse fish, particularly bream ; and in spite of a host of foes—pike, perch, eels, herons, loons and gulls, and, last and greatest, man—these fish in some localities increase to the great detriment of more valuable kinds. The best way of keeping down their numbers would be by engaging valuable fish, hitherto unknown in this country, in the warfare against them ; and it is probable that, attention having been lately given to this subject, it will be in some degree reduced to a system. To bring fish themselves in a vigorous and healthy condition, where distance is great, is nearly impossible ; but the spawn might travel instead of the parents, and be found more useful upon its arrival.

I cannot conclude without requesting the lenient judgment of those who peruse these pages. They treat of a district even now in many things "*sui generis*," although

\* I find myself here using nearly the same language as the writer aforesaid in the *Quarterly Review* ; but I had advocated the importation of fish into the broads in a paper I read at the Museum before the article appeared. It is pleasant to find one's own imaginings backed by such high authority. If I did not say this, I might seem a plagiarist.

at present under alteration and improvement. The lapse of a few years may so much change the scene, that what is now spoken of may exist no longer.

Believing that even imperfect notices of the Natural History of any part of England are not without utility for purposes of reference and comparison, I have made this attempt—it has been a pleasurable one, for it has recalled friends, scenes, and times departed. I feel the truth of the assertion—“*Forsan et hæc olim meminisse juvabit.*”

THE END.



